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# Railway Age

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SIXTY-FOURTH YEAR

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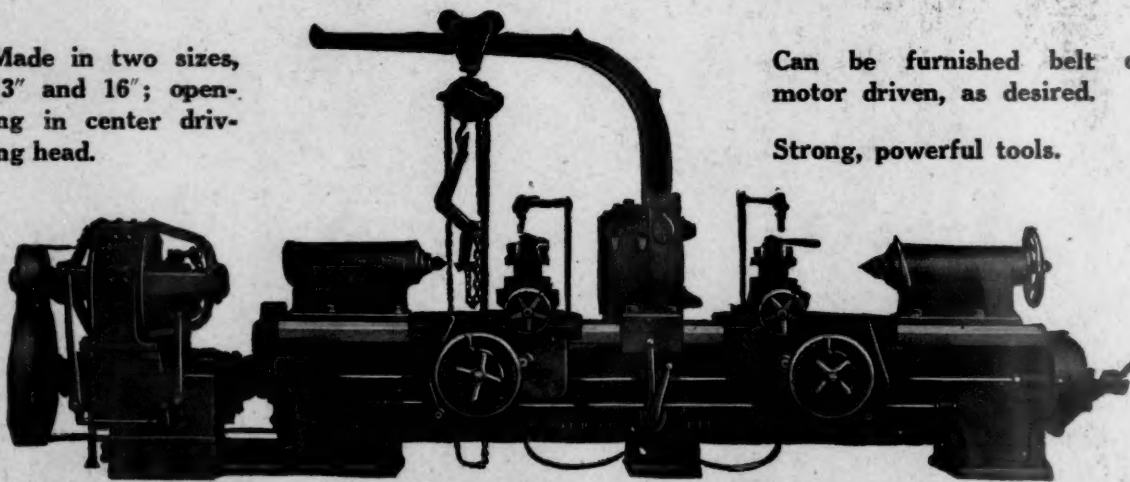
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# EDITORIAL

## Railway Age

It is an old saying, but none-the-less true, that it takes money to make money. The railways can with comparatively small

### A Worth While Investment

expenditures make improvements which will save coal and there should be no hesitancy in doing this. It is a very grave error not to make improvements which it is known will more than pay for themselves in the savings they make. At a certain railroad terminal up to two years ago, two stationary boilers, each of 175 h.p. capacity, were employed for steam heating purposes—heating stations and other buildings as well as coaches and sleeping cars standing on cleaning and repair tracks. During extreme winter weather two and sometimes three locomotives were coupled to the steam line and used as an auxiliary to the boiler plant. A careful investigation of the condensation losses occasioned by carrying the steam pipes underground without proper insulation and drainage was made, with the result that the pipes were taken out of the ground and placed outside and proper insulation applied. The reduction in condensation losses accruing from this change was so marked that even under the extraordinarily adverse weather conditions that obtained last winter it was found that ordinarily one of the two stationary boilers would carry the load, the second boiler being cut in only under the most extreme weather conditions. Here is a case where a little horse sense saved the use of two and sometimes three locomotives in the cold weather months when they are badly needed by the operating department. Consider how much fuel costs today and then examine closely for similar "leaks." The results will be surprising.

The placing of orders for 104 locomotives for export to the South African Railways, the Railroad of the Province of Santa Fe in Argentina, the Federated Malay States Railways and to Portuguese East Africa, as detailed in the Equipment and Supplies column of this week's issue, will be received in

### Locomotive Orders for Export

the supply field with no small degree of satisfaction. These orders come at a time when there is practically no domestic business in sight. What is equally as important, the orders serve to bear out what the *Railway Age* and others have been saying about the world-wide shortage of equipment and about the favorable position of the United States to supply it. It is rather a co-incidence that in the new Foreign Railway News column of the *Railway Age* in the issue of January 24, statements were given concerning the shortage of locomotives on the railways of South Africa and those of the Federated Malay States. These lines have now come to the United States to help them out of their difficulties, and it would be surprising if many others do not follow. The supply field, if the indications are correct, is now ready to make practical use of its outstanding position as a possible exporter of railway supplies and to carry on the work that will enable it to help make up for the shortage of railway supplies and material in those countries that have been unable to import them from the warring countries of Europe. It is to be expected that it will make the most of its opportunities and will strive to make permanent the large trade in railway supplies that is sure to come to us from these countries. The fact that the United States Railroad Administration is not

in a position to place orders for equipment for domestic uses at the present time does not make for optimism, but inasmuch as every cloud has a silver lining, it in some ways may be a blessing in disguise by way of putting the supply field in a better position to build up a permanent foreign trade and to readjust itself to the changed after-the-war conditions.

The testimony of Director General Hines before the Senate Committee on Interstate Commerce on Wednesday throws

### Just Debts Should Be Paid

some light on one reason why the railways have fallen so far behind in their payments to the railway supply companies for materials and equipment. In reply to questions from Senator Kellogg the director general stated that the war department owes the roads \$81,888,000. This is quite a tidy sum and if paid to the railway companies would enable them to discharge some of the indebtedness which is of long standing and has proved most embarrassing to their creditors among the railway supply companies. Railway men and railway supply companies have tried to do their full part in the trying period through which the nation has passed. They surely want to take their full share in the Victory loan next spring. This they can not do properly unless their financial condition, or rather their cash situation, is very greatly improved before that time.

There is no question but what the railway supply companies have been a most important factor in helping to develop efficient and economical railway operation. Now, at a time when it is exceedingly important that the United States enjoy industrial prosperity, these companies are being threatened with

### Railway Supply Companies Suffer

disaster. They probably employ almost as many workers as the railways themselves, and on the basis of four dependents to each worker, a very considerable percentage of the entire population of the country will be affected directly and indirectly. E. B. Leigh, of the Chicago Railway Equipment Company, has insisted that the industrial prosperity of the country follows the prosperity of the railway supply interests. The present situation is being caused by the policy of the Railroad Administration in cutting down purchases to a minimum. The heads of the Railroad Administration are carrying a tremendous responsibility and doubtless they are fully aware of this situation, but how can they buy materials and equipment if they have no money for this purpose? It would seem that the Railroad Administration is financially embarrassed and that the only solution is for Congress to come to its rescue and provide sufficient funds to at least put the roads in as good physical condition as they were when they were taken over by the government. It has been intimated that the purchasing department of the administration is holding off to secure the benefit of lower prices. If this is true, then this policy is at variance with that of other departments of the federal government and is open to severe censure, particularly at this time when it is so important that work be furnished to soldiers and sailors returning to civilian life and to workers who have, until recently, been engaged in war work. Some

idea of the conditions now existing in the railway supply field may be obtained from the expressions from different supply companies which will be found in another part of this issue.

### The Tie Situation

**A**N ADEQUATE SUPPLY of crossties is essential to the proper maintenance of tracks. Renewals can be curtailed only to a limited extent before the track is weakened. The deterioration of ties is continuous and in large measure independent of traffic. Therefore, any curtailment of the tie supply strikes at the very vitals of roadway maintenance, and is cause for alarm on the part of track men.

There has been a shortage of ties on many railways during the past year, although this has been overcome in a considerable measure by increased production along others. The tie industry has suffered from the shortage of labor and other disturbing factors common to all industries during the last two or three years. Federal control of the railroads and the concentration of purchases in one committee have also brought about many changes, including the promulgation of standard specifications for ties and for treatment, the elimination of competition between roads in the purchase of ties, their distribution to meet the greatest needs, etc. These measures have been more or less revolutionary in character and have naturally aroused considerable opposition, particularly where they have disturbed long existing practices and relationships. This opposition has also contributed to the decreased production of ties.

Because of the unsettled state of affairs in the industry two meetings which were held last week at St. Louis were of more than usual importance. On Tuesday and Wednesday the American Wood Preservers' Association, an organization of railway and commercial timber treating men interested in the preservation and use of ties, met to discuss the situation. On the two following days over 100 representative tie producers met to consider their problems. A large part of the men of each organization availed themselves of the opportunity to attend the sessions of the other association and to gain the viewpoint of its members. With representatives of the railways, the Railroad Administration and the manufacturers meeting together, much progress was made in the elimination of the misunderstandings which have prevailed and which have retarded accomplishment of their common objective, the production of an adequate number of crossties.

The Forest Products Section of the United States Railroad Administration has adopted certain policies which have been ill-advised, but it has adopted others which have been highly constructive and which should be retained permanently, regardless of the ultimate form of control of the railroads. The preparation of standard specifications for ties is of benefit alike to the user and the producer, for it describes the different grades of ties in a definite manner. Uniformity of inspection is also of common benefit, as will also be a standard form of contract which it is understood the Railroad Administration now has in preparation. It is significant that one of the large tie producers, in a paper presented before his associates, urged that these and other constructive measures which have been adopted by the Central Purchasing Committee should be retained permanently. It is to be hoped that other producers will take an equally broad view of the matter, and that they will co-operate with the Railroad Administration in the development of a broad, permanent policy of production and purchase, which will insure the production of an adequate number of ties of the proper quality and at a price fair to the manufacturers and the roads.

### Mr. Hines' Statement on Government Control

**T**HE DIRECTOR GENERAL of railroads, Walker D. Hines, presented to the Senate Committee on Interstate Commerce on Monday his reasons for favoring either an early abandonment of government control or a continuance of it for five years more. He believes it would be better for the railways and the public for the roads to be returned to private control within a short time than for them to be returned, as now required by law, 21 months after peace is signed. He also believes, however, that an extension of government control to January 1, 1924, would be preferable to an early restoration of private control.

It is impossible not to admire the force and ability of Mr. Hines' argument. It shows the mastery of facts and conditions, and the power of logical presentation, which are so characteristic of him. Furthermore, unlike Mr. McAdoo, he is frank in stating his position on the ultimate disposition of the roads. He is opposed to reviving the system of regulation and of competitive operation which formerly prevailed. He does not advocate a five-year extension to give opportunity for an experiment but to give time and opportunity for a sound solution of the whole problem. He is opposed to government ownership, and says so.

Mr. Hines bases his argument against continuing government control merely for 21 months largely on the ground that, with economic and political conditions so unsettled, and with the prospect of so early a restoration of private control, it would be impracticable during this period to secure efficient operation. Strong as his presentation is in the main, we think that at this point it is weak. He does not mention the distinction between *operation* and *control*. He assumes the former must be continued as long as the latter. Unless it is decided to continue the present system indefinitely the railways undoubtedly should speedily be returned to the *operation* of the companies. We do not believe the present system of *operation* could be made a success under any conditions; and as long as uncertainty exists as to this system's tenure of life it will become increasingly inefficient. But there is nothing in the law to forbid the director general, acting for the President, to restore the actual *operation* of the railways to the companies now, while continuing government *control* throughout the 21 months' period.

Withdrawal of control would involve withdrawal of the guaranties of net operating income. Mr. Hines contends the financial dangers of immediate withdrawal of the guaranties are greatly exaggerated. But the official statistics show that with present rates and expenses the net operating income of many railways is not sufficient to pay their fixed charges and normal dividends. Mr. Hines takes the view that if an early return were decided on it would not be made precipitately, and that it is not to be assumed that the Interstate Commerce Commission and other regulating bodies would not adopt such measures as were necessary to protect the solvency of the companies. If his premises are correct, his conclusion that an early abandonment of control would be better than postponement of its abandonment for 21 months is sound. It is the financial problems presented that cause opposition to an early withdrawal of control. If the Railroad Administration, the regulating commissions and the officers of the companies would get together and solve these financial problems at once, it would be far better entirely to return the railways to the companies within a short time than to defer doing so for practically two years.

However, Mr. Hines favors the five-year extension. He does not believe a satisfactory solution of the railroad problem can be reached until after at least two more years of government operation, and until after the presidential election in 1920, and, apparently, until after the inauguration



of the next president in 1921. He contends it is not fair to advocates of government ownership to use the results of 1918 as a test of government operation, and that before a final decision on our future railway policy is reached they are entitled to see the results of government operation under normal conditions of peace. But if the advocates of government ownership are entitled to have the results of government operation under ideal conditions as a basis for argument, the advocates of private ownership are entitled to have the results of private operation under ideal conditions for the same purpose. Now, for many years the advocates of private ownership have been trying to get a system of regulation under which private operation could be conducted with maximum efficiency and economy, but they have never been able to get it. Not only were they not able to get it in time of peace, but they were not even able to get it in time of war. The conditions under which the railways were operated by the companies in 1917 were fully as abnormal as those under which the government operated them in 1918. The United States was at war nine months in 1917 and there were only 10 months of war in 1918. There was no substantial reason why the results gained in 1918 should not have been at least as good as those of 1917, except that wages were much higher in 1918 than in 1917; and Mr. Hines himself points out that the increase in expenses was due only partly to advances in wages. As a matter of fact, the Railroad Administration had the benefit in 1918 of the work of reorganization and co-ordination that was done under the Railroads' War Board in 1917. In addition, it was freed from all the governmental restrictions by which the railways were embarrassed in 1917, and exercised practically unlimited governmental power. We do not agree, therefore, that the results gained in 1918 afford no satisfactory test of government operation. If, allowing for the advances in wages, they are not strictly comparable with those gained in 1917, this is really because the Railroad Administration had many advantages in 1918 that the Railroads' War Board and the railway companies did not have in 1917.

Now, which should be regarded as more conclusive—comparative results gained under normal conditions, or comparative results gained under conditions which rendered it imperative that the roads should be operated with maximum efficiency for the protection of the very life of the nation? We believe that a test of the latter kind should prove more instructive than a test of the former kind, and, we did have in 1917 opportunity to see private operation, and in 1918 government operation, put to the supreme test. Mr. Hines believes that if the five-year extension were adopted there would be, at least after the present unsettled industrial conditions have passed, an increase of efficiency under government operation. There are very strong reasons for doubting this. In time of peace the influence of politics would almost certainly be more strongly applied to government management; and this probably would neutralize any improvements in methods that might be made.

Mr. Hines presents with great force the conditions which demand the adoption of a very comprehensive and constructive policy for the solution of the railway problem and the reasons why it should not be attempted to solve the problem within the next two years. It seems to us, however, that his whole argument makes a much stronger case for the early calling of an extra session of Congress to pass the needed legislation this year than for a five-year extension of control. During this five years, either the government, or the companies, or both, would—or should—finance additions and betterments requiring the raising of four or five billion dollars of new capital. It is very doubtful if the companies would or could do all this financing, since they would not be allowed to control the outlay. The govern-

ment surely would have to raise a large part of the capital, and might have to raise most of it. At the end of the time the railway companies would owe it a very large debt. Furthermore, after five years more of government operation the present organizations of the individual railways would be so changed as to be unrecognizable. Obviously, the difficulties to the return of the railways to private operation would then be very great, if not insuperable. We probably should have government ownership forced upon us, whether the nation wanted it or not.

Mr. Hines' argument must be admitted to be a very strong one. We believe, however, it makes a much better case for an early return of the railways to private operation, and for constructive legislation at an early special session of Congress which will enable government control to be withdrawn by the end of the present year, than for five years more of government control and operation.

## The Need of a National Reconstruction Program

TWO MONTHS HAVE PASSED since the armistice was signed and American industries are as much in the dark today regarding the future and what it will bring forth in a business way as they were on that date. As a nation we blindly refused to benefit by the experiences of our Allies during the three years of conflict before we entered the arena of hostilities. Are we going to delay similarly in preparing for the problems of peace—in many ways more difficult than those of the war itself?

With the termination of the struggle the demand for war materials ceased and those railway supply concerns and others who have been engaged in their manufacture are necessarily laying off thousands of employees. At the same time other thousands of men are being released from the army and navy. The combination of industrial retrenchment and increased labor supply can only result in unemployment and this, unless met by prompt and energetic measures, will lead quickly to business stagnation, depreciation of commodity values and serious labor troubles.

What is our national policy in this situation? Obviously the problem calls for governmental attention and solution. Private individuals or corporations cannot be expected to inaugurate large projects in order to provide employment in this period of high labor and material costs. It remains for the national, state and local governments to undertake improvement work until such time as the industries can be restored to a peace basis. Much work of a public nature must necessarily be done during the next few years. As much as possible of this should be undertaken now as a reconstruction measure and as a source of employment until the industries can build up their business. It will cost more to complete this public work now but the added cost will be borne by the public which will receive the benefits through added activity. Great Britain has already inaugurated a number of different reconstruction methods, including the payment of weekly wages to the unemployed until work can be secured for them. What are we going to do?

Let us look at the manner in which the Railroad Administration is meeting this problem as a possible indication of the attitude of the government. Until now it has been directed by a cabinet officer, an advisor of the President in the framing of national policy. It is the largest employing branch of the government with nearly 2,000,000 persons on its payroll directly and probably an equal number dependent on the railway supply companies from whom it purchases its equipment.

Has the Railway Administration work to be done? Ob-

viously it has. It is under contract to return the roads to their owners at the expiration of the period of federal control in as good condition as when they were taken over. They should be fully maintained, both to keep them in good condition to render service, and to give as much employment as reasonably can be provided during the present period of unsettled business, whether they are to be returned to private control or not. Now, it is obvious that they have not been fully maintained during the past year, when only slightly more than half of the normal quantities of rails and other track materials have been used in renewals. The purchase and installation of materials of this character necessary to make good the deferred maintenance of 1918 and to supply the normal requirements of 1919 would give employment to the normal number of men on the railways and to large numbers of men in railway supply plants. Since the Railroad Administration must take up this deferred maintenance why should it not start this program now by placing orders for the necessary materials so that they will be available when spring work opens up?

There is also a large amount of deferred maintenance in the equipment department. Information gathered by the *Railway Age* indicates that there is a very large number of freight cars which are in such a condition that they ought to be scrapped, and still a larger number that must have heavy repairs before they can be efficiently and economically used in service. The fact that there is now a large nominal surplus of cars is no good reason why needed repairs to cars should not be made, and why new cars to replace those that should be retired should not be bought. Proceeding with the work now will give employment to labor at a time when the welfare of the nation demands it shall be given, and probably it will not be long until all equipment in good order that can be used will be required in service.

Past experience has demonstrated the necessity for the roads to continue programs of improvement during periods of declining traffic if they are to be prepared to handle successfully the business of the busy years that follow. No better indication of the present inadequacy of railway facilities is to be had than the experience of a year ago. A large part of the improvement work is chargeable to capital account and thereby to the corporations. Like other business concerns, they are inclined at present to defer much of this work, regardless of its necessity, because of its present high cost, although without doubt they would co-operate willingly in the inauguration of many of these improvements if they could be carried on at normal cost to them. Furthermore, the fact that the corporations are not now in control of the management of the properties, and that how long government control will be continued, and the terms upon which the roads will be returned to private operation, are unsettled, makes the corporations extremely reluctant to co-operate with the Railroad Administration in inaugurating an extensive programme of additions and betterments. But there is no good reason apparent why the Railroad Administration should not adopt a policy of making up deferred maintenance, or why the government and the companies should not agree to make every outlay for additions and betterments which would be valuable to the individual railways if government control were abandoned and to the government if it were continued; and a large majority of needed expenditures for additions and betterments would be of this character.

It is true material as well as labor costs are at present very high; but if needed expenditures are postponed until costs come down, many of them will be made too late to be of value when an increase of business comes. The Railroad Administration as well as the railroad corporations is showing an unwillingness to carry on maintenance and improvement work at present prices of materials. The Administration's present tendency seems to be to curtail expenditures generally. Federal purchasing agents are showing a disposi-

tion to reduce purchases to the minimum. Only a few days ago the purchasing agents in one region were instructed by the chairman of the regional purchasing committee to exchange materials as far as possible in order to avoid the necessity of going into the market for any supplies other than those branches of government service are appealing to the patriotism of manufacturers and employers of labor to assist in providing work for our munition workers and returning soldiers, another government department, the Railroad Administration, is promoting unemployment.

It has been said that while attempting to settle the problems of other countries, we may be neglecting some of our problems at home. One of our most important national problems today is the development of a unified reconstruction program which will place our industries on their feet and in a position to utilize the large merchant marine which is now being built to enable us to compete for foreign trade in the markets of the world.

## New Books

*Proceedings of the American Railway Master Mechanics' Association.* Edited by V. R. Hawthorne, secretary. 528 pages, 33 plates, 6 in. by 9 in., bound in cloth. Published by the association, 746 Transportation building, Chicago. Price, \$5.

The fiftieth volume of the Master Mechanics' Association Proceedings, which has just been issued, covers the activities of the organization during the years 1917 and 1918. A large part of the book is devoted to an account of the convention of 1918, which includes several valuable committee reports. The report on the shop manufacture and repair of semi-elliptical springs covers the subject very thoroughly. The report on the design and maintenance of locomotive boilers is devoted principally to a discussion of the field for autogenous welding in boiler work. The committee on fuel economy and smoke prevention outlined briefly the problem of fuel economy on railroads and made specific recommendations concerning the methods of handling storage coal. The committee on train resistance and tonnage rating submitted data secured from train resistance tests and engine tests. Several important changes were made in the specifications, standards and recommended practices of the association. The development of feedwater heaters is covered very thoroughly in an individual paper by J. Snowden Bell.

*Structural Engineers' Handbook, Second Edition.* By Milo S. Ketchum, dean of the College of Engineering, University of Colorado. 6 in. by 9 in. 928 pages, illustrated, bound in flexible leather. Published by McGraw-Hill Book Company, Inc., 239 W. Thirty-ninth street, New York. Price, \$5.

The first thousand of this second edition brings the total issue of this book to 13,000 copies since the first edition appeared in 1914. This is probably a better testimony to its value than can be given in any other form. It is essentially a manual for the structural designer and detailer combined with a handbook on structural steel sections, 531 pages being devoted to the first portion and 397 to the latter. The crowning achievement of this book is the attractiveness of its illustrations and typography. The drawings represent an enormous amount of work and painstaking care. The scope of the volume is indicated by the subjects of the several chapters which cover such matters as roof trusses and mill buildings, office buildings, highway bridges, railway bridges, retaining walls, abutments and piers, timber bridges and trestles, steel bins, steel grain elevators, steel head frames and coal tipples, erection, engineering materials, structural mechanics, and design of steel details. In the new edition details of steel windows and doors, data on cement and gypsum tile roofs and moments in stiff frames constitute the principal new material.



# The Railway Supply Industry Is Hard Hit

## Representative Concerns Tell of Difficulties Caused by Administration Purchasing Policy

**T**HE RAILROADS, for several years, have gotten along with a minimum amount of material and new equipment. When the exceptionally heavy traffic developed a few years ago and additional equipment was necessary, it was impossible to obtain it, first, because so much equipment was being sent to France and Russia and later, after this country entered the war, because of this reason and also because of priority orders which diverted material to ships and munitions. It has been impossible to keep the facilities and equipment in good condition and a very large amount of deferred maintenance has accumulated.

When the armistice was signed it was felt in many quarters that the transition from war to peace conditions could be very greatly helped by placing large orders for railway material to take up this deferred maintenance and to put the roads back into the condition in which they were prior to the war. For various reasons the Railroad Administration has cut down on purchases to the very minimum and this is working a great hardship on the railway supply companies, many of which had assisted the government by the manufacture of munitions and other war materials. Now, instead of being able to take care of the boys who are coming back to them from the army and navy they are finding it necessary to cut down their forces and many of them face an entire shutting down of their plants if railroad purchases are deferred much longer.

With a view to securing exact information as to the present situation the *Railway Age* sent a night letter to a number of representative companies on Monday evening, February 3, asking for a statement concerning what the policy of deferring maintenance and renewals, not to speak of betterments, means "to your organization and labor, now and in the future." It was not intended to make a canvass exhaustive, and only comparatively few names were selected at random from the large number of supply companies. A number of representative replies follow:

### American Castings Company

Birmingham, Alabama

After sixteen years of hard work against considerable odds, we have built up a railroad supply commodity known throughout the railroad maintenance and construction field as National Lock Joint cast iron culvert pipe. About 95 per cent of our business is obtained from railroad construction and railroad maintenance. In 1917, our business had reached a state of development and steady production that was very satisfactory. When the United States government declared war, followed immediately by taking over of the railroads under federal control, the result in our business was almost instantaneous. The reason for this was plain; under government control, the railroads were ordered to discontinue new construction except in cases of military necessity; maintenance budgets were cut accordingly.

Fortunately for us, at the outset we received an order from the director general of military railways for a large amount of our product, to be used in the construction of military railways in France; this kept us going full tilt for about 8 or 10 months. When this order was completed we were thrown back on our regular source of supply for business, and we found that that source had vanished, and it still remains at the vanishing point.

The railroad problem still continues unsettled; no pro-

vision has been made as to who shall pay for new construction. Now that the necessity of conserving material and labor has been removed, the question of railroad construction and railroad betterments, or maintenance, still continues throttled and absolutely dead. We understand the situation or reason of this is largely attributory to the fact that no provision has been made by the government as yet to determine who shall pay for new construction and railroad betterments—whether such an expenditure shall be borne by the United States government, or private owners of the different lines.

Regardless of whether the railroads are to remain under government control for five years or for 21 months, the policy of the government in regard to railroad construction and improvements should be settled; otherwise we can expect no railroad construction and very little railroad betterments. That being the fact, manufacturing plants which are depending on that source of supply must necessarily go out of business.

Owing to the above-mentioned facts, taken in connection with the high cost of material and labor, we have found it impossible to operate, and have closed down, discharged our employees, and are now waiting and hoping for relief. That relief can only come through a revival of railroad construction and betterments, and a continuance of the maintenance program as it existed prior to 1917, or, in other words, before the roads were taken over by the government.

Railroad purchases have a vital influence on general business; they are a big factor in determining the question of good or bad times in general business. For this reason, it is hoped that a speedy solution can be reached, and that some relief for this unbearable situation may be had.—*B. D. Dimick, President.*

### American Flexible Bolt Company

Chicago

I believe publicity is desirable regarding the extreme difficulty of holding the working organizations of manufacturers of railway materials together with the present purchasing policy of the Railroad Administration. Cessation of war work leaves patriotic concerns who have used their means in expanding facilities holding back and unable to now run as eleemosynary institutions. Patriotic labor does not want charity. Railroad materials orders are not charity, but will solve manufacturers' and workers' difficulties in the present crisis.—*C. A. Seley, President.*

### American Steam Gage & Valve Manufacturing Co.

Boston, Mass.

The present government policies as regards purchasing new equipment, as well as for maintenance and renewals, mean to us no return on a very considerable investment, as well as unemployment for workmen skilled in this work. During the war period we were fortunately able to handle other work to partially offset the loss of orders due to government purchasing policies, but now that the substitute work is ceasing the real situation looms more clearly and causes us much concern. We cannot believe that those in authority realize the serious situation that has been created, and we feel that only quick action on their part will avert serious embarrassment to our industry.—*H. B. Nickerson, Secretary.*

### American Steel Foundries Chicago

On account of lack of orders, it has been necessary to close down our plants at Sharon, Pa., and East St. Louis, Ill., involving directly 2,240 men and indirectly many more, as on account of the uncertain outlook we have been obliged to cancel or suspend orders for raw materials, etc. These plants normally run exclusively on railroad work. Unless there is a resumption of railroad buying for maintenance, renewals and betterments within the next 60 days, it will be necessary to close down and curtail operations at other plants involving 5,000 more men. Many of the 1,112 of our men in the army and navy now returning are expecting their old jobs, and it is our intention to take them back, but the policy of the roads of deferring maintenance and renewals is making this difficult, if not impossible, in many cases. Pending the settlement of the general plan as to how the railroads are finally to be operated, some fair arrangement should be made to enable them to continue necessary purchases at least for repairs and maintenance, proper provision being made for amortizing the amount by which present costs exceed normal average costs. A wise settlement of the railroad question would do more to help the industrial situation during this period of readjustment, necessarily involving a great deal of unemployment, than any other single action that could be taken by Congress at the present time.—*R. P. Lamont, President.*

### American Tool Works Company Cincinnati, Ohio.

The government's policy of deferring purchases at this time is most deplorable. It sets an example which, if followed by various industries, will demoralize business, shatter organizations and throw thousands of men and women out of employment. During the industries' transition from a war to a peace basis, a period of readjustment with very light extensions or replacements of equipment is inevitable. Instead of aggravating this condition, which its present policy is unquestionably doing, the government should endeavor to assist industries over this period by encouraging sorely needed renewals, maintenance and betterments. This is the time to help, not to hinder, industries. The task of reverting to a peace basis involves much more difficult problems than the preparation for war activity. The unqualified response of our industry to the government's call for war production surely entitles it to some consideration now that conditions are reversed.—*J. C. Hussey, Western Sales Manager.*

### Ashton Valve Company, The Boston, Mass.

In my judgment the greatest menace to the United States of America at this time and the immediate future is the lack of employment, fast assuming alarming proportions. Our gallant boys left good positions to fight the battle of freedom, and unstintingly we placed the combined resources of the nation behind them. If we were justified in spending approximately twenty billion dollars to wage this war, are we not equally justified in expending such further sums as are warranted and necessary for constructive peaceful purposes and to provide positions for our soldiers returning with the expectation of immediately assuming their former occupations?

Under government control of the railroads, the railway supply manufacturers have not received the average business obtainable heretofore under private management, and were forced in many cases to divert their plants to production of other war necessities. The need for such having passed,

unless such manufacturing plants are enabled immediately to resume their ordinary production, stagnation of business and unemployment will necessarily follow. I, therefore, believe Congress should immediately take cognizance of the situation, authorize and direct resumption at once of all suspended improvements on the railroads. If prompt action is taken I believe that this will greatly relieve the trying situation confronting the business and labor interests of our country.

Any unnecessary retrenchments or action on part of the government officials hastily to readjust prices will cause business confusion and force wage reductions, leading to strikes and unemployment, and will not only rock but swamp the boat.—*J. W. Motherwell, Vice-President, Chicago.*

### Chicago Railway Equipment Company Chicago

The policy of deferring betterments, maintenance and renewals cannot but be paralyzing to the railway supply industry and to the employment of labor. Its baneful effect, however, is much broader and far-reaching. For years, as you know, I have claimed and graphically demonstrated beyond question that railway purchases measure general business prosperity, and that we have not had and could not have general business prosperity without this essential factor excepting when some other great element could or did take its place. This did occur during the war when munitions and other war work were the substitutes. With these withdrawals, we are again back to our normal dependency upon railroad purchases. The great problem of industrial conditions and labor employment can be solved more quickly and effectively by resumption of railway purchases than in any other manner. Thus it is not a question of the railway supply industry alone, but the welfare of the whole country—manufacturer, merchant, laborer, farmer, or of whatever occupation.—*E. B. Leigh, President.*

### Columbia Nut and Bolt Company Bridgeport, Conn.

Our railroad business during the past three years has been about 25 per cent of what it ought to be during normal times. Our shop equipment being particularly adapted for the manufacture of nuts for railroad use, you can readily see that a curtailment of purchases by the railroads affects us vitally and does not permit us to maintain our full organization from a labor standpoint. We believe that if the railroads were turned back to private ownership, they would see the necessity of making much needed repairs as well as purchasing new equipment which seems to have been lost sight of under government management. A change of policy would certainly be beneficial to the railroad supply interests.—*Fred Atwater, Treasurer.*

### Crane Company Chicago

We can only say that our sales to the railroads for January, 1919, were 50 per cent less than January, 1918.

### Dearborn Chemical Company Chicago

A great opportunity for continued employment of labor at the present high but fair rate of wages is now offered Congress by so concentrating its energies on the railroad problem so as to determine an early solution of it. Pending the adoption of a permanent plan, Congress should insist on the Railroad Administration proceeding at once with a broad program for maintenance improvements and betterments, Congress providing adequate financial provision for it.



Even though government operation continues but a short time these improvements, so necessary to satisfactory public service, should go rapidly forward, as provision will be made for completion or continuance of such work on the adoption of any permanent plan of control or operation. It is most important that the thousands of workmen employed in industries making railway equipment material and supplies be kept engaged. A proper program of expenditure to improve public service will not only keep these men employed but will in addition provide in the railway manufacturing industries employment for thousands of our returning soldiers.—*Robert F. Carr, President.*

#### **Detroit Lubricator Company**

Detroit, Mich.

We feel that because of the effort most manufacturers are making (which cannot be kept up indefinitely) to keep their employees occupied by making stock, which later may depreciate in value, the Railroad Administration should do its part to bridge over the present low spot through a liberal policy of maintenance and betterment. If, on account of all doing their share, business can be accelerated, the railroads as the country's second largest industry will get a proportionate return. It is a good business to be fair to the railroad owners, and we believe that betterments should be charged against them only at what would represent the cost under normal conditions.—*H. I. Lord, Vice-President.*

#### **General Railway Signal Company**

Rochester, N. Y.

The total railway sales made by this company in the months of November and December, 1918, and January, 1919, amount to 34.3 per cent of such sales for the corresponding three months of 1917-1918 and 34.5 per cent of such sales for the corresponding months of 1916-1917. In order to retain in our employ as many of our men as possible we have been and are manufacturing stock in excess of normal requirements, but despite this artificial and necessarily temporary expedient, and though we have made no reduction in wage rates, our railway department pay rolls have decreased approximately 20 per cent in the last month. Obviously, each month's prolongation of present purchasing policies will necessitate farther and greater reductions of forces in our railway departments and will inevitably result in greatly increased cost of production.—*W. W. Salmon, President.*

#### **Glazier Manufacturing Co., The**

Rochester, N. Y.

No matter how optimistic we may be, there is no use in fooling ourselves; we must acknowledge the truth; times are not good, and a great many are idle who might be working if conditions would allow. There is certainly need for a great deal of railroad material, but conditions must be righted. The question is, therefore, how best to bring this about.

When we got into the war, committees of representative men were appointed to guide various industries and formulate plans for increasing production, etc., with the big idea in mind of winning the war. Now that the war is won, isn't it just as important to formulate definite plans for winning peace and prosperity in the United States? We hear much about a League of Nations, and protection for races of people all over the world. Let's have a League of Business Interests at home, whose duty it shall be to look after the rights of labor and business here in the U. S. A. By the rights of labor, I mean the *opportunity* to work at fair wages, not merely raising the wage scale and then removing the opportunity to work. There can be no prosperity in the United

States unless the railroads are prosperous. There has been much talk, but no action. The time has come for action.—*Oscar F. Ostby, Vice-President.*

#### **H. G. Hammett**

Troy, N. Y.

I view with great apprehension the present and immediate future outlook concerning business conditions facing the manufacturers of materials used by railroad companies. My entire output is used by the railroads and largely in the construction of new locomotives. The delay of the U. S. Railroad Administration in placing orders for new locomotives has resulted in my being compelled to reduce the number of employees by about 20 per cent; and if large orders are not forthcoming within a very short time a complete shutdown of my plant will inevitably follow.—*H. G. Hammett.*

#### **International Pulverized Fuel Corporation**

New York

Since 1908 the annual additions of new locomotives and cars and of terminal and equipment repair and power facilities have been entirely insufficient during each year. The equipment has also depreciated from obsolescence and inadequacy, due to the lack of additions, of reinforcements and refinements for the purpose of providing the proper safety, efficiency and economy in operation and maintenance. For the next ten years, the United States railways will require annually an average of 5,000 locomotives, 3,500 passenger cars, and 200,000 freight cars to replace obsolete and dismantled equipment, and to provide additional equipment, if the service is to be properly maintained. In addition, about 25,000 locomotives, 20,000 passenger cars, and 500,000 freight cars now in existence should be reinforced and improved.

Nothing will do more to stabilize and be of greater avail in the present period of uncertainty and unrest than immediate provision for the definite, diversified, distributed and productive employment of labor and material in the rehabilitation and reconstruction of the steam roads.—*J. E. Muhlfeld, President.*

#### **Kerite Insulated Wire & Cable Company, Inc.**

New York

The works of this company are located in the Naugatuck Valley in Connecticut, which has been not only during the war but is normally a large industrial center. Owing to the fact that a waiting policy is being pursued in regard to the placing of business, which, under normal conditions, would keep the greater part of these plants in operation, the question of unemployment is becoming serious. It will, of course, unless some other policy is adopted, become rapidly worse, with the result that large numbers of men will be without work and without proper means of support. It seems to us that if a way can be found which does not conflict with other broad and important phases of the situation, it would be most advisable to carry forward at this time any work for which there is legitimate need in the way of maintenance and betterment. It seems to us that in the bigger sense it is to be urged both from an economic and social point of view.—*R. D. Brixey, President.*

#### **Mudge & Co.**

Chicago

We have not laid off any of our men, feeling it our patriotic duty as employers to keep our labor actively employed at this time if at all possible to do so. It has been necessary for us to place a large amount of goods in stock anticipating renewed buying. We may have been able to justify our-

selves in this where other companies could not because our business is seasonal and we have had more than we could handle in the spring of the year for several years past. Also, we have felt an optimistic confidence that Congress and the Railroad Administration would soon realize that their present policy means the shutting down of many railway equipment plants and unemployment of a large number of men and would take some active steps to alleviate this very serious condition. Unless some new policy is soon pursued it will be necessary for us to close our shop because we will not be able to bear the financial burden which has been made doubly hard because the railroads are backward in paying their accounts due, as we understand it, to the inability or failure of the Railroad Administration to settle their accounts.—*Burton W. Mudge, President.*

#### National Railway Appliance Company New York

I have viewed with growing concern the apparent introduction of the policy of retrenchment in the matter of purchases by the railroads of the country which cannot help but bring disaster upon one of the most important branches of industry—the railroad supply trade. If this policy is continued, it will simply mean that we will be forced to lay off salesmen; cut down our office force, and a decided retrenchment will have to be inaugurated in the factories controlled by the companies we represent, which will mean the laying off of well-paid workmen with all the unfortunate results that a condition of this kind brings in its trail.

Something has got to be done, possibly by Congress, possibly by a change in the policy of the director general of railroads. Whatever is done or whatever change is made, *must come soon, unless the unfortunate results which I have touched upon are brought about.* There is no question that extensive repairs to equipment should be made as it is fast becoming in a deplorable condition. Large expenditures for betterments and extensions are decidedly needed, all of which, if attended to, would create business for a line of industry which is now sadly in need of work and which must have speedy relief.—*B. A. Hegeman, Jr.*

#### The P. & M. Company New York

A delay in placing orders for material needed by the railways during the coming year is undoubtedly disturbing the labor situation greatly. We appreciate that possibly the railways do not wish to make large contracts at this time in the expectation of a price reduction, but a policy of purchasing a month to month supply would help the situation greatly. In the case of our company there are less than 20 per cent of the men employed in the manufacture of our material compared with a year ago.—*F. A. Poor, President.*

#### Parkesburg Iron Company Parkesburg, Pa.

Prior to 1918, or before the United States Railroad Administration controlled the policy of the railroads in this country, the percentage of our output, which consists exclusively of charcoal iron boiler tubes, ran, for a number of years, from 70 to 80 per cent of railroad orders. During 1918 the percentage of our output shipped to railroads in this country was under 20 per cent, and at the present time we have practically no orders on our books from them.

Fortunately, during the past year we have been able to run to capacity, largely on tubes for marine boilers, but as this demand is necessarily slackening, we anticipate depression and the necessary laying off, in the near future, of men in our plant, as well as in others, whose primary purpose is to furnish railroad supplies, unless the United States Railroad Administration very promptly authorizes the transpor-

tation systems of this country to repair and replace their motive power as in the past. We believe that by so doing the government will prevent a serious business depression, with its attendant distress and hardship to labor.—*George Thomas, 3rd, Treasurer.*

#### Pettibone Mulliken Company Chicago

Stop the present deferment of railway purchases! If continued a few weeks longer it will cause us to shut down, throwing all of our men out of employment. In view of the necessities of the railways, especially as to track and terminals, we believe every effort should be made to place such orders at once in order that labor may be employed and the transportation facilities of the country maintained. This is especially important at this time when returning soldiers are looking for work. Every effort should be made to give them occupation and to maintain present labor in employment.—*A. H. Mulliken, President.*

#### Rail Joint Company New York

If the Railroad Administration has decided to defer maintenance and renewals and betterments, I feel that it is against the judgment of their practical men who certainly realize the seriousness of such a stand not only to the country at large but to the roads themselves. There is considerable idle capacity in mills and shops which furnish material now required by the roads. Unless orders are placed at once for at least their next three to six months' requirements, additional capacity will be idle with a resultant number of men.

No one can look for any considerable reduction in prices with the present scale of wages, and it is apparent the Administration has no desire to disturb them. Buying immediately will permit the manufacturers to retain the men now employed; will allow taking on a certain number of present unemployed; and permit the roads to perform on a more economical basis the necessary work already scheduled over a period of months than if later an attempt is made to crowd matters and catch up with their schedule.—*V. C. Armstrong, President.*

#### Railway Car Manufacturers' Association

##### Representing:

American Car & Foundry Company.	Magor Car Corporation.
Bethlehem Shipbuilding Corp. (Hartford Plant).	McGuire-Cummings Mfg. Company.
Bettendorf Company.	Mt. Vernon Car Mfg. Company.
J. G. Brill Company.	Osgood Bradley Car Company.
Cambria Steel Company.	Pacific Car & Foundry Company.
Haskell & Barker Car Company.	Pressed Steel Car Company.
Keith Car & Mfg. Company.	Pullman Company.
Laconia Car Company.	Railton Steel Car Company.
Liberty Car & Equipment Company.	Standard Steel Car Company.
	St. Louis Car Company.

At the annual meeting of the Railway Car Manufacturers' Association, your telegram to its various members, inquiring as to the effect of the present policy of the Railway Administration in deferring maintenance, renewals and betterments was discussed, and it is the opinion that this policy, if continued, will prove disastrous to the car building, railway supply and kindred interests, and to the workmen employed by them.

When the armistice became effective, all car builders and suppliers of railway materials were engaged to a very considerable extent in producing war materials, and more particularly railway equipment for overseas shipment to the American Military Railways. These orders for the military railways have been curtailed and suspended to such an extent that the industry has been compelled to materially curtail production, necessitating the laying off of a very considerable portion of its working forces.

Under average conditions car builders and suppliers of



railway materials have always received a fair amount of orders from domestic railways, not only for new railway cars to replace those worn out and destroyed and increased equipment required to meet the country's growing needs, but also very considerable orders for maintenance materials. The industry now finds itself without orders of this class on its books, and can only look to the Railway Administration for relief, which of course will not be forthcoming if the present policy continues. This affects not only the car builders and suppliers of railway material themselves, but also kindred interests engaged in supplying materials to them and will have a far-reaching effect and result in serious non-employment in all lines in any way associated with the railroad supply business.

Some of our members report that they have now been compelled to completely close down some of their departments and materially curtail production in all others, and consequently lay off a considerable number of men through the lack of orders for miscellaneous repair and replace parts.

In our judgment, during the transition from war to peace conditions, the welfare of our industry and of every community in which any part of it is located is dependent on full maintenance of purchases by the railways, not only for present needs, but also to supply the deficiency which deferment during the period of the war has caused.

#### Roberts and Schaefer Company

Chicago

We felt for some time, and are now more impressed with the importance of the fact that our national Congress is not, as a unit, appreciative of the hardships that the railroads, in all their several branches, are undergoing. Owing to lack of funds, because the government is failing to supply funds, and because the railroads are exceeding their appropriations, it has become almost impossible for contractors to continue their construction work. We have large contracts for one of the wealthiest and best operated railroads in this country, and yesterday we received word to discontinue work or postpone construction until such time as an appropriation could be made for one of the largest contracts we have with them. Furthermore, the writer was advised last week that they might find it necessary to hold up construction work on several more contracts.

We hear from several sources that railway employees are being laid off in every department of railroad organizations; this, because of the very great decrease in income since shortly after the signing of the armistice. Furthermore, there is absolutely no business being given out by the railroads, nor has there been any for three months. If we are to enjoy the prosperity that everyone has been talking of, there must certainly be improvements and betterments in the railway system of this country.—*J. J. Roberts, Treasurer.*

#### Sherwin-Williams Company, The

Cleveland, Ohio.

Business is now suffering from a lack of confidence on the part of buyers. The longer buyers hold off, the greater this lack of confidence will be. We believe that if the large business interests would show sufficient confidence in the future and authorize needed expenditures, there would soon be a decided improvement in business. There is a great deal of unfinished work to be done, and by postponing it we are only delaying the return of prosperity. It seems to us it would be good policy on the part of the government to authorize the expenditure of money in every legitimate way, and thus set an example to others.

It is common knowledge that there is great need for a generous expenditure of money on all railway equipment and railway property of all kinds. The manufacturers of

railway supplies are suffering from the policy of the Railroad Administration in deferring maintenance and renewals, which results in a large number of plants running on part time, and in some places plants have been closed. The Railroad Administration, by proper and generous expenditures of money, will not only preserve the great railway properties, but will do a great deal to help keep business going and labor well employed. We sincerely hope we will soon see the policy of retrenchment changed to one of expansion.—*W. H. Cottingham, President.*

#### Vapor Car Heating Company, Inc.

Chicago

With the rapid return of men looking for jobs on the one hand, and the necessity of laying off men and reducing forces, both labor and clerical, on the other hand, it seems to me that we are "working both ends against the middle." Most railway supply concerns have maintained the large forces—labor, clerical and technical—required to meet the railroad wants during war activities, until its maintenance now represents an actual loss.

It has been hoped that high class labor forces and the general clerical and technical organizations required to conduct a railway supply business could be kept intact to prevent the falling away of the organization, because it is perfectly well understood by those familiar with the physical condition of the railroads that large and immediate purchases are necessary to put the railroads into a normal condition again.

It is a fact that the roads are not taking steps toward rehabilitation or even normal maintenance—railway supply companies are laying off labor instead of hiring it, and at the very time when the general good of the country most demands the quick and profitable employment of every man possible.

The present condition of affairs is serious and as I see it there is nothing but trouble immediately ahead unless the present policy of restricting the railroads' purchasing activities is changed by some action on the part of Congress that will relieve the present uncertainty as to what the railroads can do in the way of taking care of themselves.

The present wage schedules of labor as employed by the railway supply companies should be very satisfactory to the employees, but if no jobs are available what does it profit the man who wants to work?—*E. H. Gold, President.*

#### Westinghouse Air Brake Company

New York

As our industry is wholly dependent upon orders for material connected with the maintenance and extension of railway facilities, it will be injured to the extent that a policy of deferring purchases for railway maintenance, renewals and betterments results in a less than normal expenditure by the railroads for such purposes. Necessarily, the pursuit of such a course will greatly accentuate the difficulties of unemployment, at a time when it would seem as if every incentive should be afforded to existing enterprises to increase, rather than to reduce, production—particularly those contributing to the maintenance and building up of our transportation system, which is a vital element of our national existence that cannot live upon a starvation diet at any time and is especially in need of a constructive and strengthening policy, rather than the reverse, at this time. There is, no doubt, merit in the proposal to start new governmental enterprises for the purpose of giving employment to those who are seeking it, but no greater assistance in that direction can be rendered than to enable established industries to completely utilize their productive facilities.—*H. H. Westinghouse, Chairman.*

## Shall We Lay Off More Men?

By a Supplyman

**R**AILWAY SUPPLY LABOR is being discharged by the thousands, at a time when their work was never so greatly needed.

Who developed the air brake?

Who made the safe brake beam and brake shoe?

Who brought the locomotive superheater to its present status?

Who made the safe vestibule for cars?

Who developed the life-saving car coupler?

Who developed car-heating and car-lighting?

Who made boilers safe with flexible staybolts?

Who has made our railroads safe by signalling?

Who made good the steel freight car and steel car wheel?

Who dug up, perfected and developed the fire brick arch for locomotives?

Who brought to the present degree of perfection the locomotive stoker, the improved truck, safety valves, power reverse gear, bell ringers, sanders, automatic fire doors, headlights, safety devices and factors for improving economy and increasing efficiency of the locomotive?

Is there one of the major or any of the minor developments in this incomplete list that has been brought to useable shape by anyone but supply men?

These developments usually owe their success to an inspiration on the part of someone who is devoting his life to the interests of the public in connection with improvements which are made for better, cheaper, more comfortable and safer transportation.

These supply interests who have done such monumental constructive work for the locomotive, the car, the track, and for signalling are entitled to the closest, warmest and most thorough co-operation from the railroads and from the government, particularly in these times when transportation is personally vital to every soul in the country and because but for transportation we would be like China today.

The Railroad Administration appreciates what would happen to vast numbers of miners in case coal should be purchased for the railroads without reference to the wages of the miners. The Administration has ruled for protection of the miners' wages. This is done with one hand while the

other hand rules that the roads shall include nothing in their budgets in the way of supplies or for locomotive or car improvements, or safety devices—the purchase of which can possibly be avoided.

Why is this? Why is the Railway Administration putting so many men out of work, throttling an industry to which the country owes so much? Why do not the authorities examine the number of men in the country who are affected by this policy? They bulk about as large as the number of railroad men themselves. Why is the immense railroad supply industry not used for the benefit of the people? Why are their plants laying off men? They should be kept at work because the cost comes back in savings in so short a time. This costs nothing because of the savings to be made by the railroads.

It is time that those who have the power to fix this situation should take a look at what they are doing and fix it quickly.

I was told today that an important railroad committee is not announcing the dates of its meetings for fear the supply men will be in the city at the time. Of course they will. That committee, however, can not afford to overlook those supply men in working out the railroad problem of today. They are among the most valuable assets the railroads have or ever had. They are the best asset the traveling and shipping public ever had for they make travel safe and economical. Here again let us ask what the locomotive would be today and how much coal would it burn but for these very supply men, or where the car would be as to safety and efficiency but for them?

Is it possible, that knowing these facts, railroad officials and government officials do not appreciate what inspiration, what courage, what strength of purpose and persistence against obstacles are required to develop a locomotive, car, or track improvement for American railroad service?

The improvements have only just begun—a new era has opened—an era which should mean the doom of wastefulness. The public can not afford for one minute to forget what the supply men can do for them in this emergency.

Railway supply labor is being laid off by the thousands when their work was never so greatly needed.

Shall we be able to put them back to work or shall we lay off more men?



This Locomotive Made in America for the French Government Was Captured by the Germans, Used by Them, Recaptured, and Has Since Been Used by the Americans



# Tie Producers Discuss Conditions in Industry

## Consider New Specifications and Methods of Purchase Brought About by Centralized Control of Railroads

**O**VER 100 PRODUCERS of railroad crossties from all parts of the country met at the Hotel Statler, St. Louis, Mo., on January 30 and 31 to discuss the conditions now existing in that industry and to perfect a national organization. This meeting was called by the Tie and Timber Division of the St. Louis Chamber of Commerce to consider the problems resulting from the centralization of purchase of railroad crossties in the hands of the United States Railroad Administration. Representatives of the Forest Products Section of the United States Railroad Administration were present and participated in the discussion of several of the papers.

The meeting was called to order by A. R. Fathman (Western Tie and Timber Company, St. Louis), temporary chairman, and E. E. Pershall (assistant to the president of the T. J. Moss Tie Company, St. Louis), temporary secretary. A permanent organization was formed under the name of the National Association of Railroad Tie Producers with permanent headquarters at St. Louis, Mo. The officers elected were: President, John W. Fristoe, president T. J. Moss Tie Company, St. Louis; vice-president, C. C. Gresham, vice-president Ayer & Lord Tie Company, Chicago; secretary, Robert Hussey, vice-president Hussey Tie Company, St. Louis; treasurer, Robert E. Lee, Hobart-Lee Tie Company, Springfield, Mo. Eleven regional vice-presidents were also elected.

### The Tie Situation

During the convention reports were called for from representative manufacturers in the different tie producing regions. One manufacturer stated that the production in Ohio and Michigan was now only 20 per cent of that of one year ago. Production in the Pocahontas region for 1918 was reported to have been 50 per cent of normal. In the Southern area the production ranged 25 per cent to 50 per cent of normal, although deliveries were in excess of this amount because of the large number of ties in stock early in 1918, 75 per cent of the 1918 deliveries coming from this stock. In the Southwestern region a shortage of crops has resulted in the maintenance of production to approximately a normal figure, but with the improvement in crop conditions the output will be reduced greatly. In the oak and cypress regions of Louisiana and Texas the production was reported to be approximately 75 per cent of normal. In the Central Western region the 1918 production was estimated at 20 per cent of normal, but the outlook is now more favorable for a normal production during this year. In Wisconsin the production is now approximately 100 per cent of normal owing to the fact that many saw mills have begun to make ties for the first time. In Minnesota, where ties are hewn, the production is approximately 40 per cent of normal. In the Pacific Northwest the excessive demand for labor in the ship building yards contributed to a heavy curtailment in tie production, but conditions are now approaching normal.

### Specifications and Centralized Purchases

M. E. Towner, manager of the Forest Products Section of the Central Advisory Purchasing Committee, United States Railroad Administration, spoke before the convention on Thursday afternoon. The following is an abstract of his remarks.

One of the first considerations in railroad construction or maintenance is the crosstie. Necessarily it must be and has

been described in the form of a specification, which advises the producer what the railroads must have and is supplemented by instructions which guide the inspection forces in their interpretation of the specifications.

The specification and its application are the result of study on the part of the railroad engineering and purchasing forces to determine (1) the crosstie which will furnish the best bearing surface in meeting the varied conditions of the roadbed, and, (2) which will best subscribe to the possibilities of production. Not until unified operation of the railroads became effective could unified specifications be adopted and such adoption only took place after a most thorough canvass of the standards necessary to meet traffic conditions effectively, with consideration given to possibilities of production. That simplification was accomplished is shown by the fact that the 30 odd sizes and shapes have been reduced to 5 with the inclusion of every kind of wood generally used for crossties and provision for such others as may suit local conditions.

### PRINCIPLES OF PURCHASE

1. No railroad under control of the director general may purchase ties on any railroad under his control with which such road connects. The elimination of competition between railroads is generally agreed to be sound in purpose and practice.

2. Any railroad under control of the director general may purchase ties on any railroad not under his control with which such railroad connects. Such purchase is made with full consideration of the interests of the producing roads.

3. The price shall be fixed on the various lines by the individual railroad companies, subject to approval by the regional purchasing committee, and at such figures as will cause the production of a sufficient number of ties to meet the requirements of all the railroads. The question requires close study, accurate action and fairness to the producer as well as the user, or to all factors involved in the actual production of crossties. The general lumber market itself as represented in the use of woods which go into crossties must of necessity be considered although the lumber market does not in all cases affect tie prices. Labor, materials, conditions of supply and demand, etc., must and have entered into consideration. In the main, crosstie prices as offered by the Railroad Administration at the present time are fully in accord with the factors above mentioned. There are two producing factors: (a) Those who own, manufacture and market their product direct to the user; and (b) Those who not only buy stumpage but through financing encourage the production of and make possible the marketing of the product.

4. Every railroad should endeavor to secure the maximum output of ties on its lines, so that its own requirements can be met with the minimum amount of transportation. This question is one of organized effort and all roads should be guided by the same principles in the application of specifications, grading rules, office organization, and with field forces obtaining an accurate knowledge of the yearly line productivity, and conservation of resources. Owners or contractors, particularly those who have built up a considerable investment in stumpages and equipment which can be used advantageously, must be carefully and fully considered.

5. Ties made on railroads which produce more than are needed for their own use, should be transferred under the supervision of the regional committees to railroads on which

a shortage exists. This injunction is being carried out and as the possibilities of productivity are better described and known, the demands involved in the proper allocation of tie requirements for importing roads will be better met.

#### CONSERVATION

The conservation of growing timber must be given the closest consideration. This not only means reforestry in the planting of trees but also the conserving of growing trees by not cutting to the point of extermination in productive fields, which practice, unfortunately, has been followed in certain territories to a very large extent, particularly in the production of ties which are known to be too small. It is the intent of the specifications to discourage the cutting of trees which should not be cut but allowed to grow. It is a fact that on many railroads, particularly in the east, the tie productivity has fallen to a low point due to the cutting of timber and any production might be quickly eliminated by the non-importation of crossties and the continued cutting of the smaller trees. Another element of conservation results from the use of all that comes out of a tree for it will unquestionably be found that either the steam railroads, the electric roads, or the industrials can find ready use for all crossties legitimately produced along the lines as above indicated. Further, the steam railroads can probably assist all concerned by taking up all ties offered.

It has been stated that the Administration aims to eliminate the contractor, but such a statement did not originate in the mind of the Railroad Administration.

If the plan eliminates anyone it can only be said that such elimination is on account of the practice followed which should not have been fostered, even if the railroads had been a party to any particular development. It is not being found that contractors with actual property investments are being eliminated, and as the problem is worked out it is shown that possibilities of crosstie production are being bettered, and better contact is being established between the user and the producer, using this term in its broadest sense.

This is not an elimination of individuals and companies from a business of years' standing, but rather a co-ordination and harmonizing of the necessary organizations in such a manner as shall produce and market a product with the least expense and the best return to all concerned. The railroads, whether under administration or individual control, must prepare themselves to be a greater factor in the production and handling of crossties.

#### The Railroad Tie Contractor

The Necessity For and The Functions of The Railroad Tie Contractor was the subject of a paper presented by Walter Poleman, president of the Western Tie and Timber Company, St. Louis, of which the following is an abstract:

The Interstate Commerce Commission reports that in 1914 there were 256,547 miles of main tracks, and 98,285 miles of yards and sidings in operation in this country, a total of 354,832 miles, to say nothing of the many miles of industrial tracks. Approximately 3,000 ties are required for each mile, giving the stupendous total of 1,063,496,000 crossties required for the main tracks, yards and sidings of the railroads of this country.

The average life of the untreated white oak tie, I think it is safe to say, is about eight years, which means that one-eighth of the present number of ties now in the roadbeds are replaced annually. In other words, there are required for replacement alone 132,937,000 ties per year, and we have not taken into account the ties necessary for new construction or for industrial tracks.

The financial figures are equally as appalling as are the quantity figures. At the present price fixed by the Railroad Administration of 90 cents per tie for a No. 3 white oak

tie at the point of production in Missouri, it means about \$120,000,000 worth of ties annually for replacement alone. This figure alone would be amazing, but when you add to this a sum of money equally as large, if not larger, representing invested capital in timber, equipment, labor organizations and working capital to finance small producers, you are beginning to have some conception of the industry we are engaged in.

Since government control, there has been a decided tendency on the part of those in charge of the administration of railroads, to deem it unnecessary (or unlawful) for the government to contract for its supply of railroad ties, but to take the view that they should leave the matter of producing and furnishing the necessary ties to the voluntary efforts of any Tom, Dick and Harry. In fact, there seems to be a very strong tendency to discourage the production of ties on a large scale; to antagonize the tie organizations in every manner possible, with a view of decentralizing the industry to the greatest extent possible, upon the apparent theory that the best results can be obtained by breaking up the business into the greatest possible number of small and unreliable units.

Up to the present time, the general public, the government and the railroads have not felt the effect of this attitude, because the contractors had large quantities of ties in their yards, along the railroads and in the forests, already manufactured, when the government assumed control of the roads. This supply has now been practically exhausted. If the present prevailing conditions continue it will be impossible to obtain even a small percentage of the demand.

The cancellation by the railroads and Railroad Administration of all contracts and the complete revolutionizing of the industry has brought production almost to the point of stagnation. When the forces and organizations which have heretofore been depended upon to produce the ties have been completely disintegrated, it will be not only a long and expensive process to reorganize them, but in the meantime the lives of the traveling public may be endangered because of insufficient ties properly to maintain safe and sound roadbeds.

In order to supply the great demand for railroad ties, there must be some kind of a financial organization to keep the wheels of production moving. This is the function of the tie contractor. He must have and maintain his organization of expert timber cruisers and buyers. He must locate the small scattered and cut over land and timber tracts where most available to railroad and water transportation. He must find labor and locate it in camps, which he must provide for, to work the timber, haul the ties to the railroad right-of-way or float them down the streams. He must provide finances to the small timber owners to take care of the mortgage indebtedness, and must finance the farmer and small producer while he is manufacturing the ties. If production is left to voluntary efforts, promiscuously, of course there will be some small production, but it will be impossible to secure the necessary large production.

It is only through the organized efforts and financial assistance of the tie contractor, that the production of ties can be increased among those men, because there are many owners of small and scattered tracts of timber who are not tie makers themselves, and who are not financially able to employ and pay the makers of ties. The contractor is obliged to send his men into the timber, inspect the ties so produced, brand them and advance sufficient money so that the tie makers may be paid, in addition to paying the owner of the timber for the value of the stumpage.

Then, too, without the organization and finances of the contractor, it would be impossible to manufacture the principal portion of the yearly supply of ties during the winter season, when labor is more plentiful, especially farm labor, and when large quantities of ties must be kept in the woods



because of impossible hauling conditions. This, of course, means that some one is obliged to keep his money tied up in finished ties for several months.

In addition to this, when tie makers cannot be found in sufficient number to keep up the necessary production, saw mills must be erected and installed, which means a heavy outlay of capital besides the attending hazards of losses not only of profits but of capital invested, and also the assumption of losses due to fire and flood.

There is an old saying that "what is everybody's business, is nobody's business." I believe this saying is still true, and I am convinced that if the production of ties is left to the voluntary efforts of the individual, the railroads, within a few months, will find themselves in very desperate straits.

#### Comparison of Methods for Purchasing Ties

J. W. Fristoe, president of the T. J. Moss Tie Company, St. Louis, Mo., presented a paper on the "Comparison of Methods for Purchasing Railroad Ties," of which the following is an abstract.

The methods and practices obtaining in the production, purchase, and sale of crossties, prior to government control of railroads, is now a portion of our industrial history, of value to us at present largely as a standard of comparison, and as a fund of experience from which we may develop certain deductions for possible future guidance. These former fundamental considerations between the tie producers and the railroads were as follows:

- (1) Negotiations and contracts were made between individual corporations or firms and the railroad companies for specific numbers of ties for delivery in a specified period, and at some agreed price.
- (2) The production of ties was pursued by a large number of concerns, of varying degrees of financial standing, with no definite trade customs, and without any industrial organization.
- (3) The larger, more efficient, financially stronger, and responsible tie producers became known as "contractors," as the better purchasing agents of our large railroad corporations recognized that first principle of a sound contract, that of entering into an agreement with a co-contractor who was entirely responsible for his obligations.
- (4) These so called tie contractors, collectively, shouldered the responsibility of supplying the railroads with crossties, switch ties, and similar railroad material. Their producing operations could be roughly divided into three methods, all, or any one of which were being used by any individual operator:
  - (a) The contractor would purchase timber lands or timber and under the supervision of experienced foremen, and with his own payroll, would manufacture, haul, load and ship the crossties to his customer, or,
  - (b) He would purchase the timber, or assist in purchasing the timber for a sub-contractor, who would have the ties manufactured and hauled to a transportation line. In practically every instance the contractor would be compelled to carry the larger part of the financial burden by advancing, as above, the cost of the timber, the cost of manufacturing the ties, and waiting for his pay until such time as the ties would be hauled to a transportation line, or,
  - (c) The contractor's investments in timber, in saw mills, in mules, and in labor, generally stimulated the production of cross ties in the territory where he was operating, but in addition, through personal solicitation and financial help, a large number of small farmers and settlers were induced to convert their surplus timber into ties, the contractor inspecting the ties in the woods, advancing the cost of making, and waiting for his pay until such time as those ties could be hauled to a transportation line.

#### EFFECT OF THE PRESENT SYSTEM

One of the first acts of the Administration affecting the industry was the order prohibiting the purchasing of ties at prices in excess of those paid on December 31, 1917. The effect of this order, while temporary to be sure, could not have been intended to inspire confidence in the minds of the contractors, in view of the rapidly rising cost of tie production. The tie contractors were told at this time by the Central Advisory Purchasing Committee, the Forest Products Section of that committee, and the Regional Purchasing Committees, that they should continue in the production of ties, as no legitimate tie producer would have any reason to expect anything but fair treatment at the hands of the United States Railroad Administration, and that all operations should continue as heretofore; that the railroads were in dire need of ties, and that the contractor had nothing to fear.

However, this order was followed by the publication of new specifications and methods of purchase, and when these were announced the tie industry became most thoroughly alarmed, doubtful, and hesitant. The action taken by the Administration of establishing arbitrary prices, specifications, and method of purchase, was only justifiable as a war measure and has worked an injury and serious damage to those very concerns that the railroads had seen fit to develop.

The effect of this attitude was to create radical changes in the very fundamentals of operation that had been in effect for a considerable period in the past, and some small measure of these drastic changes can be determined by the realization that if the railroads prior to the war had attempted to decide, by common agreement, with power invested exclusively in themselves, that they would agree nationally on the prices and methods of purchase, there would have been grounds for legal recovery of damages to such concerns as the tie contractors, and possibly federal prosecution of those very railroad officials connected with such an agreement, under the Sherman Anti-Trust law.

One of the fundamental considerations of our national commerce has been the cost of transportation, and when the prices of ties are established without regard to freight rates, they are established without regard to the intrinsic value of the material in question; without consideration to established and preeminently correct methods of valuation of all standing timber; and without cognizance of the fact that the producer is constantly competing in the purchase of stumpage with the lumber men and other wood using industries.

The answer to establishing a proper price, neither too high or too low, on all of the various kinds and grades of ties, in the numerous and extensive tie producing territories, is not a matter that can be decided upon by any arbitrary power, no matter in what man or group of men this power might be invested. The real truth, as to the proper price to pay for a commodity, has been taught us nationally, in the foundation of our American business relationships, and has been strictly guarded in times of peace by federal legislation, and that truth is the law of supply and demand.

#### VALUABLE EXPERIENCES FOR FUTURE GUIDANCE

The winning of the war now brings us together to face the problem of a period of reconstruction. We would be dull indeed were we not to profit by many experiences to which we have been subjected. We have the opportunity of eliminating detrimental practices of the past and retaining constructive policies. We should weld these good parts into a symmetrical plan of general operation. A selection of these good points of both systems used in the purchase of crossties is herewith presented:

In the past we obtained (1) quantity production, (2) low prices, (3) direct contact between the individual railroad and its direct source of supply, and (4) a stimulation of

the industry due to individual initiative, contract obligations, and business reputations.

At present we are obtaining (1) standard specifications, (2) a standardization of inspection and (3) a material improvement in the grade of ties, under a system where a premium is paid for quality.

On the foregoing principles there may not be entirely unanimous agreement, but it is safe to assume that a substantial majority of all the interests affected would readily subscribe to an arrangement that would embody these various points of merit. Therefore, it is asked that the following plan be considered:

#### SPECIFIC SUGGESTION

Let us assume:

(1) That all railroads register their annual crosstie requirements with a central purchasing committee, and that all railroad ties be purchased and inspected in accordance with nationally standardized specifications.

(2) That all railroad ties shall be inspected by regional inspectors, in accordance with standard rules for the application of the specifications.

(3) That the individual roads shall enter into contracts directly with the tie producers for such portions of their requirements as the railroad administration may consider justified from time to time.

(4) That all contracts shall be awarded only after fair and open competition has developed the lowest price per tie obtainable from responsible bidders.

(5) In the event of a contractor being delinquent in the specified deliveries for certain kinds of ties, the United States Railroad Administration may prohibit his acceptance of any additional business for the same kind of ties.

(6) That the purchase of all railroad ties by the United States Railroad Administration shall be effected through a nationally standard form of contract.

(7) Reports from regional inspectors, purchasing agents of individual roads, and the regional purchasing committee, shall necessarily be forwarded to the central purchasing committee. These reports shall provide a fund of information regarding conditions surrounding production in the various regions, and in regard to the various kinds of timber, shipments, and prices, so that the central purchasing committee can, through the regional purchasing committees, intelligently and effectively instruct the individual railroads relative to the kinds of timber, number of crossties being produced, and as to the opportune time and manner to purchase future increments of their requirements.

The *basic reasons* and *advantages* of a method of purchase of this character may be outlined as follows:

(1) The system is based upon the proper business relationships according to our American standards.

(2) The proper price for crossties would be established and changed from time to time by business conditions.

(3) The purchasing departments of the entire United States Railroad Administration would be provided with first hand and all proper knowledge in regard to production, shipments, and prices of railroad crossties.

(4) The production would again have the stimulant of a contract obligation, individual initiative, a premium on foresight, reward for efficiency, and a desire for volume of business.

(5) The suggested arrangements are susceptible of practical application either under governmental ownership or governmental control.

(6) In cases of emergency, the regional purchasing committees could draw upon any road's contracted supply of ties, with despatch, and without any negotiation with the seller.

(7) The regional purchasing committee would be permitted to perform the highest functions in the field of pur-

chasing, leaving their minds free for the consideration of the exceptional conditions.

(8) The economies in transportation, as far as the length and cost of haul are concerned, would automatically adjust themselves in the majority of instances.

(9) The method of purchases, as above outlined, is in substantial accordance with arrangements now effective relative to numerous railway supplies.

(10) The people of the country would positively, definitely, and beyond any doubt know that expenditures for railroad crossties were being made in accordance with the best American business standards.

(11) The business would be conducted on the basis of absolute fairness and business equality between buyer and seller, without dictation by any arbitrary or artificial power, and in specific and direct relationship to the law of supply and demand, upon which the entire structure of our American commerce is predicated.

#### DISCUSSION

In the discussion of this paper Mr. Poleman asked Mr. Towner how over-production can be controlled with the present purchasing methods involving the elimination of contracts and the centralization of purchases. Mr. Towner replied that many roads have always secured their ties from small producers along their lines, working without contracts. There is now an over-production in one area of more than 8,000,000 ties beyond the requirements of the roads in that vicinity. The Purchasing committee has told the producers in that region to curtail their production beyond a certain date but if a surplus still exists at that time, the committee will endeavor to take the ties off the producers' hands. The central purchasing committee already knows the requirements of every road for 1919 and has estimates of the production in each area. Every producer will be notified in ample time to avoid any overproduction which may be threatened.

#### Cost of Producing Railroad Ties

The factors entering into the increased cost of producing ties under the new specifications were brought out in a paper by John H. Johnson of B. Johnson & Son, Richmond, Ind., which is abstracted below:

You are, of course, familiar with the present plan of posting circulars in conspicuous places in all railway stations, offering to purchase ties of anybody, naming the prices to be paid and giving the specifications—the man who hauls in a wagon load of ties to receive the same price for his ties as the man, firm or corporation who has an expensive organization built up after years of experience, who has large investments in saw mills, teams, timber, etc., and who devote their entire time and attention to the business of producing ties. In our experience, we have known of railroads deciding to buy their ties by the method named above, in spite of the fact that we had a good organization on the line and were getting ties in sufficient quantities to meet the needs. In fact, we procured more ties in some years than were needed, enabling us to ship the surplus off the producing line. The result of trying to buy by circular was a complete demoralization of the business, and it did not take a year's time to demonstrate that this plan was a mistake. The only reason for making a change in the manner of buying the ties, was the hope of buying them cheaper. We could not buy the necessary timber, as the owner knew the established price for the ties and he figured he must have a certain price for his timber accordingly. In a great many cases he would not make it into ties himself nor would he sell at a price which would permit the contractor to buy and manufacture, the result being that ties were not produced. Nor could we get the amount of labor usually procured, for the price of ties was published to the public at



large and the tie maker figured he should have a good share and he demanded more than we could afford to pay. As a result of this idea of "direct from the producer to the consumer" the production was practically eliminated.

We have found that it is a very difficult matter to try to change the methods of the tie maker or saw mill man. He has always been educated to make two grades of ties. Specifications handed him were simple and he could easily understand and apply them. Also it was not difficult for the man who had to ride the woods and make an inspection of the ties to apply the same simple specifications as to grades. This also applied to the railroad inspector who finally inspected the ties. But along came the new specifications with five grades and prices—and we must confess it has been very difficult to get the man away back in the country to understand them. He is not the only man either who does not, for one inspector for the railroads inspects one way and one another, interpreting the specifications differently. It seems to us that, of all times to make a change in specifications (if it had been necessary to have made any change at all) the time chosen was inopportune, as the demands for all forest product was unusually great and it has been very difficult to put into satisfactory use the new specifications.

One serious problem is the buying of timber at prices that will justify our making it into crossties. It has always been our policy to make our timber into ties and not take the best for some other product of a higher grade and price and then cut the cull timber into ties. We have preferred to adhere strictly to the tie business and have found it more to our advantage. The price of timber stumpage has been increasing as the demands of the country developed. We find the publication of the new government prices has greatly stimulated the price of standing timber and we cannot blame the owner of the timber for raising his price when he sees the published price of ties. On account of the way the new specifications are being applied in a great many instances, it would pay the owner of timber to let his timber stand or cut it into something other than ties.

One of our timber men estimates that 40 percent could not be made into ties to stand the technical application of the new specifications at the present prices. The price of the low grades of ties is too low to justify bringing out the 40 percent left in the woods. I am sure we will all agree that everything should be done to prevent any waste of timber and we believe a better price paid by the railroads for what are called "serviceable rejects" will make it worth while to make into ties such timber as is suitable therefore. It is our judgment that there should not be such a wide difference in prices between the Grade 1, 6 in. by 6 in. tie which is practically our old second class tie, and Grades 2 and 3. If the price of the lower grades could be increased it would be a great help in the production of ties. The prices of all ties have been too low to compete with the prices of lumber. The class of timber that is necessary to make the kind of tie desired must be high grade which is now worth more when manufactured into lumber.

We believe all of these conditions have a bearing on the cost of producing railroad ties under the new specifications. They have caused us to pay as much as ten cents per tie more to get it made with the axe and the cost has been even greater when sawed, ranging from 15 to 20 cents more per tie. It is costing from 50 to 60 cents for the labor alone to get 6 in. by 8 in. by 8 ft. ties from the tree to the railroad now, whereas formerly we could get the work done for from 35 to 45 cents. Some of our very best tie makers have left good jobs where the timber was good because it was difficult for them to make a tie to comply with the new specifications. The fact is, that the old-time tie maker is getting to be a thing of the past and it is becoming necessary more and more to produce ties at saw mills.

There are three other things which I would like to mention as having much to do with the cost of producing ties: (1) prompt inspection after they are delivered to the railroad; (2) the prompt placing of cars in sufficient numbers to avoid carrying such a large quantity on hand as has been necessary so many times, involving the investment of a great deal of money, and (3) the payments made by the railroad companies to the contractor or producer of ties.

#### Disposition of Small Timber

The disposition of small timber under the new specifications was discussed by Howard Andrews, of the Nashville Tie Company, Nashville, Tenn., in a paper presented on Friday afternoon. Mr. Andrews prefaced his paper with the remark that the new specifications have eliminated the use of much small timber formerly converted into ties. He did not question the advisability of this practice from the standpoint of the railways, but did question its advisability from the standpoint of timber conservation and its effect on the ultimate source of supply of tie timber. He referred to time within his memory when roads such as the Erie were able to secure all of the ties they needed along their right-of-way, but that the country is now depleted of tie timber as far south as the Ohio River. Mr. Andrew's paper is abstracted as follows:

An examination of the Administration specifications shows that the smallest tie accepted must be one that if hewed or sawed to squared edges would measure 6 in. by 6 in. Such a tie, however, generally is one such as was formerly known as a 6 in. by 8 in. tie, being 6 in. thick, 8 in. through the body, and with a 6 in. face or surface under the rail. I know from experience that under former conditions many railroads in the country would have accepted such a tie as No. 1, 6 in. by 8 in., or at least as No. 2, 6 in. by 8 in. Under the present conditions the production of this 6 in. by 6 in. or "grade 1" tie is being discouraged by the Railroad Administration, both in price and in other ways, whereas under former conditions this was one of the standard sizes of ties in use.

What is now called a 6 in. by 8 in. tie by the Railroad Administration, being a tie that will show squared edges of these dimensions, would formerly have readily made what was the standard 7 in. by 8 in. tie, being a tie 7 in. thick, 8 in. through the body, and with a 7 in. face, or surface under the rail. Either the new specification "grade 3" 6 in. by 8 in. tie, or the old time standard 7 in. by 8 in. tie would come from the same stick of timber. I believe the advantage is all with the old tie, which has more bulk and weight, and therefore is more desirable under the rail. It is also more economical in manufacture, as so much is wasted in chips by the axeman in cutting the square edge 6 in. by 8 in. tie, and these chips would be of value if left on the tie and used in the track under the rail. It may be argued by the Railroad Administration that the tie man may have the option of leaving these chips on the tie, and that he does not have to cut them off, but no extra pay is given for these chips. Inasmuch as most ties are hauled by wagon a considerable distance before reaching the railroad, it is to the tie man's advantage to cut off and waste these chips, rather than overload his wagon on a long haul with something he does not get pay for. It is my contention that any effort to secure a square-edged tie is an economic waste, as the value of the tie is governed more largely by the thickness and width through the body than by the width of face under the rail, although the width of face, of course, is some consideration. I think there is no question that a tie, say 6 in. thick, 8 in. through the body, and with a 7 in. face is of more value than one that is hewn or sawn to strict 6 in. thickness and 7 in. wide, square edges, etc., yet the Railroad Administration pays the same for both ties.

The Grade 1 tie means a stick of timber that will cut

the equivalent of a square tie, 6 in. by 6 in., and this means a stick 9 in. in diameter at the smallest end. I understand that it is one of the theories of the Railroad Administration that by commanding a larger tie they will conserve the timber of the country by preventing the cutting of smaller trees.

The timber that it is necessary to conserve, and which should be utilized into ties and accepted and used by the railroads in such proportions as are practical, is the upper part of every tree that is cut down. The Railroad Administration specifications now admit of the acceptance only of ties made from sticks of timber at least 9 in. in diameter, although previously it was possible to market ties made from sticks 8 in. in diameter at the small end, which made a tie perhaps a little less than 6 in. thick, but 8 in. through the body, and with 5 in. or more of face under the rail. While I do not know that it is advisable to use a small tie for heavy service, I am sure that such a tie made from an 8 in. stick of timber, could be used in large quantities and with satisfactory results in spur tracks, branch lines, etc. I have been told that it is common for the largest railroads in the country to use the best 7 in. by 8 in. ties in unimportant spur tracks and sidings, where a smaller tie would not wear out or rot any sooner than a large one.

Eliminating the possible conservation of the small trees which might be effected by the use of large ties only, I am convinced that the production of ties to meet the Administration specifications means a waste of from 20 per cent to 50 per cent in timber. Every tree that is cut down will produce one or more ties from sticks 8 in. in diameter, and under 9 in., which are not accepted when the minimum tie must come from a 9 in. stick. When these smaller ties are not made, there is nothing to do with the upper parts of the trees but to let them lay in the woods and rot. I know of no other disposition to be made of the timber, except such as may be cut into cord wood for the farmer's fire. Cord wood cannot be cut and shipped to the larger cities in competition with coal as fuel. A loss of 20 per cent to 50 per cent in timber means a corresponding reduction in the number of ties coming from a certain acre, and makes necessary a higher price for such ties as are marketed, unless the timber owner is willing to accept 20 per cent to 50 per cent less for his timber.

We must remember that specifications, no matter how satisfactory they may be from the railroad viewpoint, will not affect the size of the trees that the ties are to be made from, nor will they affect the growth of timber for future use. We must cut according to our cloth.

#### DISCUSSION

In the discussion of this paper, Mr. Towner stated that the Forest Products Section has given careful consideration to the utilization of the small ties, and has taken the matter up with trolley lines and industries where small ties can be used equally well. The government has accepted over 500,000 ties too small to come within the standard specifications within the last seven months, and is trying to secure disposition for them. It will try to use all small ties coming from the tops of trees, but will not willingly accept ties cut from small trees, as this practice is in conflict with conservation.

Mr. Andrews urged that conservation must include measures looking toward (1) timber preservation, (2) the discovery of use for small ties by the steam roads, as the traction lines cannot absorb all of them, (3) the finding of use for ties with small defects. He stated that the timber he is now working on will produce from 25 per cent to 40 per cent more ties if smaller ties are accepted.

Walter Poleman asked what, if any, discretionary powers are given to inspectors to consider the larger end of the tie, or to average its diameter to reduce the minimum diameter accepted. Mr. Towner replied that the value of the tie is limited by the diameter at the point of rail bearing at the

smaller end and that no allowance is now made for excess size in the remainder of the tie.

Mr. Poleman also called attention to the fact that large quantities of timber are now being made exclusively into mine props. Mr. Towner stated that the Forest Products Section now has this question up with several state forestry departments, and is endeavoring to encourage the use of other timbers for this purpose to conserve the tie supplies.

The price paid for usable rejects (ties not complying with the specifications) has been a source of contention. Mr. Towner stated that the price for such ties has been left entirely in the hands of the regional purchasing committees and largely to the disposition of the individual roads. Attention was called to instances where purchasing agents had refused to accept ties complying with the specifications unless the usable rejects were also turned over to them. Mr. Towner stated that it was not the policy of the purchasing committee to force a producer to turn the usable rejects over to the railroads if he could dispose of them to better advantage elsewhere.

### Orders of Regional Directors

**P**ILOT FOR TRAINS MAKING DETOUR MOVEMENTS.—Order 154 of Southwestern regional director, similar to File 1200-272A461 of Eastern regional director, abstract of which appeared in *Railway Age* January 31, (page 315).

**Freight Car Distribution.**—In Supplement 1 to Circular 70 the Northwestern regional director announces that for the purpose of relieving the present surplus of box cars in eastern territory and to get cars into western territory that are suitable, or can quickly be made suitable, for loading, orders are now being placed by the Car Service Section for inter-regional movement which provide for the delivery of: (a) box cars in good order and cars that can be made fit for grain by light running repairs or cooping; (b) bad order or rough freight box cars belonging to the receiving road or belonging to other roads in the same region (bad order cars belonging to other than the receiving roads may be either repaired by them or delivered to the owning lines). Cars received on these orders which, in the opinion of the receiving line, should not have been delivered will not be rejected or returned except by authority of the terminal manager at the junction point or the chief interchange inspector if the terminal manager delegates this authority to him. When cars are accepted through gateways where no terminal manager is in charge the receiving road will accept all cars offered and will report promptly to the regional director's office all improper deliveries.

**Deadheading Household Goods for Railroad Employees.**—In Circular 166 the Southwestern regional director announces that the household goods of employees may be moved deadhead, and this may be done over two or more federal-controlled lines if that is necessary.

**Transportation over Short Line Railroads.**—In Supplement 10 to Order 109 the Southwestern regional director states that federal managers should make requests direct on non-federal controlled "short line" railroads for such annual transportation as they consider necessary for their officers and employees.

**Insurance on Construction Work.**—In Supplement 2 to Circular 68 the Northwestern regional director states that fire and casualty insurance should be secured on construction work when the cost is chargeable to capital account, the premiums to be included in the cost of the work.

**Inspection of Coal.**—In Supplement 14 to Circular R.P.C. 3 the Northwestern Regional Purchasing Committee announces that on account of the discontinuance on January



31 of inspection by the Fuel Administration of coal loaded at mines it will be necessary for the railroads themselves to undertake the inspection of fuel. As pointed out by the Fuel Conservation Section of the Railroad Administration, the decrease in commercial and railroad demands for fuel makes it no longer necessary to purchase coal of marked inferior quality. At the present higher initial mine costs for coal, increased fuel transportation and labor costs, the difference in heat values of coal having varying thermal efficiency represents, in dollars and cents, a wider margin of loss when inferior coal is accepted than during past periods when prices and handling costs were considerably lower.

The Eastern regional director has issued similar instructions, file 1500-3-28A464.

**Fire Inspection Service.**—The Eastern regional director, file 1800-34-6A472, states that a meeting of superintendents or supervisors of fire protection will be held in the New York Central Board Room, Grand Central Terminal, New York, at 10:00 a. m. Friday, February 21, to discuss the various problems in connection with fire prevention, and to analyze fire losses that have been sustained.

**Shop Supervision.**—The Eastern regional director, file 1200-2-30A474, quotes from a letter received from W. T. Tyler, director, Division of Operation, dated January 27, as follows:

It is stated that in some of the shops where a change has been made from piecework to hourly or daily basis, the piecework checkers, usually clerks or office men, have been put in the position of foremen at foremen mechanics' rates. I suggest the advisability of cautioning federal managers against leaving any opportunity for criticism in connection with this matter.

**Extension of Railroad Mail Service.**—The Allegheny regional director, in Circular 125, states that it has been decided that it is permissible for railroads under federal control to carry as railroad business, without payment of postage, mail which relates to the business of other railroads under federal control and which is sent by and addressed to officers or employees of railroads under federal control.

**Filing Time on Railroad Messages.**—The Eastern regional director, file 2001-5A475, quotes from a letter received from Martin H. Clapp, manager, Telegraph Section, Washington, D. C., as follows:

I do not think that it is desirable that the filing time be transmitted and shown on received copy of all the messages sent by the different railroads. It is, however, desirable to have the filing time sent and shown in connection with all messages sent to and from the telegraph office of the Railroad Administration at Washington.

**Meetings of O. S. and D. Representatives.**—In Supplement 2 to Circular 66, the Northwestern regional director states that a considerable saving has been effected in claims for lost and damaged freight at an important terminal in the region through periodical meetings of railroad representatives for the purpose of matching up shipments of freight found over without billing. He directs that similar weekly meetings be inaugurated at all other common points. Where terminal managers are employed, these meetings will be held under their direction. A brief report showing the number of shipments of freight "over and short" on each railroad, and the number eliminated should be sent from each station involved to the regional supervisor of freight, loss and damage.

**Consignments to Shippers' Order.**—Under date of January 27, the Northwestern regional director calls attention to Rule 38 of the Western Classification, which provides that the issuance of bills of lading for shipments consigned "to order" will not be permitted unless the name of the person, firm or corporation to whose order the shipment is consigned is plainly shown after the words "to order." Likewise the issuance of bills of lading for freight consigned to shippers' order at one point involving the notification of a consignee at another point is not permitted, except when consignees are located at prepay stations or interior points, in which case the freight must be consigned to an

open station to be designated by the shipper. The regional director states that this rule shall apply to all shipments regardless of whether the tariffs governing are subject to Western Classification rules.

**Attitude Toward Bills Introduced in State Legislatures.**—The Eastern regional director, file 1201-12A473, states that the following instructions have been received from the director general relative to the attitude that should be assumed by railroads under federal control toward bills affecting railroads and the Administration:

With respect to legislation in any way affecting the interests of labor, it is to be understood that the Administration has no such legislation to propose, nor will it lend its assistance in any form to measures affecting a repeal of existing laws affecting the interests of labor. Following out the policy which has been suggested by the director general to representatives of labor, it is understood that such representatives will bring such operating proposals affecting the interests of employees, as they consider to require action, to his attention for administrative action rather than advocate the passage of state legislation to accomplish their purpose. Should legislation of this character be proposed, however, it should be brought at once to the attention of the director general. (Of course any legislation of a "social" character proposed by representatives of labor and having no relation to railroad operation will not be dealt with at all by or on behalf of the director general, through regional directors, federal managers, or otherwise).

With respect to other proposed state legislation affecting railroads under federal control, you are authorized to take such action as may, in your judgment, be advisable in the way of bringing to the attention of the legislatures, or of legislative committees, the facts relating to the subject of the proposed legislation, the effect thereof on railroads under federal control, if enacted, and such reasons in connection with the enactment thereof as you believe should be presented. Questions so handled before legislatures or legislative committees should be dealt with by representatives of the Railroad Administration authorized to talk for the Railroad Administration and the Railroad Administration only. Whenever any steps are taken in that direction or in the way of committing the Railroad Administration to any attitude with respect to proposed state legislation, the director general should be immediately notified.

**Duties Assigned to Board of Railroad Wages and Working Conditions.**—The Eastern regional director, file 1200-274A477, advises of special provisions which are to be made for conferences between representatives of the regional directors and representatives of the employees involved in the matter of rules and working conditions for various classes of employees upon roads where such employees do not have agreements or schedules: "Instead of holding extensive hearings and themselves sifting out the testimony and framing rules, it is considered highly desirable both for the sake of conserving the board's time and securing a more mutually acceptable set of rules and working conditions, to have representatives of the regional directors and representatives of the employees involved meet and, so far as they may be able to do so, agree upon such rules, referring to the board for consideration the rules, if any, upon which they are not able to agree (as well as, of course, those upon which they are able to agree) and from this report the board will make its recommendations to the director general."

**Agreement Between Director General and Express Company.**—In Circular 165 the Southwestern regional director refers to the agreement between the director general and the American Railway Express Company which provides that the express company will transport without charge over lines under federal control all packages of money, valuables, papers and shipments of materials and supplies ordinarily forwarded by express, which are used in the operation of any of the controlled roads. In this connection the question recently arose whether it was the intention, under this law, that business should be handled dead-head for one line moving over another. The answer is in the affirmative. The express company will also transport without charge shipments of tickets and supplies to agents of the Pullman Car Lines.

**Rerouting Carload Freight.**—In Order 153 the Southwestern regional director outlines the practices which are to be observed by railroads in rerouting carload freight. Instructions provide for notation on waybills by the agent changing the routing and the sending of a postal card to the consignee advising him of the diversion. The order also

gives detailed advice as to the method of handling charges when freight is rerouted.

*Distribution of Empty Freight Cars.*—Circular 172 of the Southwestern regional director, similar to Circular 70 of the Northwestern regional director, abstract of which appeared in *Railway Age* of January 17 (page 206).

*Cleaning and Disinfection of Stock Cars.*—In Order 155 the Southwestern regional director states that the Department of Agriculture has called attention to the fact that considerable difficulty is being experienced at many points in the enforcement of that part of the Bureau of Animal Industry order No. 245 concerning the cleaning and disinfection of cars which have been used in the interstate trans-

portation of live stock affected with contagious, infectious or communicable disease and asks that steps be taken to bring this matter to the attention of all concerned.

*Clauses to Be Incorporated in Contracts.*—In Supplement 10 to Circular 11 the regional purchasing committee states that the following clause included in Supplement 9 to Circular 11 of the regional purchasing committee should hereafter be eliminated from contracts and orders: "(A) If during the life of this agreement any competent government authority shall for the first time establish a price on the articles hereby contracted for, the price so fixed shall be paid for all material delivered under this agreement after the date when such price becomes effective."

## Plan of Security Owners for Return of Roads

### Minimum Rate of Return, Corporation to Finance Readjustment, Co-ordination of State and Interstate Regulation

A COMPREHENSIVE PLAN for the return of the railroads to private operation and for their future regulation was presented before the Senate Committee on Interstate Commerce on January 31 by S. Davies Warfield, president of the National Association of Owners of Railroad Securities. The principal feature of the plan, which has been adopted by committees of the association, proposes an act of Congress providing that such rates for freight and passenger service shall be established as will produce a minimum return (6 per cent suggested upon the combined property investment of the roads in each of the three classification territories), excess earnings above this amount to be distributed under the control of the Interstate Commerce Commission, part of it for the benefit of the employees and part of it for improvements. It is also proposed to create a National Railways Association, directed by trustees composed of the nine members of the Interstate Commerce Commission and eight railroad men, to assist in financing the return of the roads and to continue or adopt co-operative methods of operation. The plan also provides a system of regulation by the Interstate Commerce Commission and six regional commissions with a co-ordination of federal and state authority.

In outlining the association's plan before the committee, Mr. Warfield took issue with the suggestions previously made for federal incorporation of railroads and for the creation of a secretary of transportation and vigorously opposed both government ownership or government operation for the five-year period proposed by Mr. McAdoo. In support of the plan Mr. Warfield left with the committee letters of approval from Elihu Root, Hugh L. Bond, Jr., John G. Milburn, John S. Miller, Luther M. Walter, Forney Johnson, and B. H. Inness Brown, counsel for the association. The constitutionality of some of the suggestions from others previously appearing at the hearings, notably federal incorporation of railroads, was denied by these same legal authorities. Some of the important organizations of shippers of the country, Mr. Warfield said, support many of the ideas he advanced and for the first time the committee could find itself confronted with a plan approved by spokesmen for the security owners and the shipping interests.

An abstract of Mr. Warfield's statement follows:

#### Methods Open to Congress

We understand that three methods are open to Congress in respect to the railroads:

1. To carry out the provisions of the federal control act

under which their control and operation was taken over by the government for the sole purpose of war.

2. To extend the period of federal control and operation for five (5) years for purposes clearly not those for which they were taken.

3. Government ownership—a question embodying a complete reversal of national policy, of vital moment to every interest in the country.

The third proposition we assume is not at this time being seriously considered by your committee, no matter what may be the opinion of some in respect thereto. Certainly the results of federal control and operation thus far obtained cannot give comfort to advocates of government ownership. The exigencies of the present situation require immediate action in respect to property that was taken for war under agreement with the owners for its return as outlined in the federal control act.

The second proposition is disposed of in the settlement of the first. Extension of the time of federal control and operation beyond the time specified in the act for the return of the railroads would take them to a point where they *cannot be returned at all*. Congress placed the federal control act on the statute books. Your committee knows the purpose the Congress had in mind when this was done. And Congress will decide whether it is defensible to seize property for war purposes and when those purposes have been served to use the vast investment therein to carry out individual theories of railroad operation and for experimental purposes. The financial structure of all credit is involved in the decision of your committee, apart from the question of common honesty involved, for Congress did not authorize the investment of fifty million people in these properties to be seized for one purpose, and then put to another. Your act not only specifically names the time within which the railroads shall be gotten ready for return to their owners and for such return, but it also provides for the physical condition in which you expect and require them to be returned.

We believe that the railroads of the country should be returned to their owners under private operation as early as practicable, but not before legislation can be enacted that will assure adequate facilities and service at reasonable rates under proper control and regulation by governmental bodies and protection to the investment in the properties.

We urge that this legislation be enacted early in the 21 months allowed by the federal control act to prepare for their return, since each month of continued so-called uni-



fication and diversion of traffic takes the railroads further away from normal methods of meeting the business requirements of reconstruction. They are fast losing their individuality and we ask during the present session of Congress such temporary legislation, at least, as shall cause the immediate restoration of the normal requirements of the railroads, such as their traffic and other departments. The longer this is delayed the more difficult does it become to carry out the intention and provisions of the federal control act.

We ask that you will provide for a gradual liquidation of the indebtedness of the railroads to the government. The government's loans to the railroads, outside of advances of annual compensation or rental, largely represent expenditures made at the sole discretion of the director general for war and other purposes over which the railroad corporate managements have had no control, and often made without their approval. You may recall that the contract executed between the government and the telephone company gives 20 years during which repayment of obligations, similarly created, may be made. A large part of the loans made to the railroads by the government represents the compensation the railroads are entitled to receive under the federal control act, as rental. In many cases this rental has been called an advance, notes given therefor and collateral required therewith.

As the first step in the return of the railroads, the one plan contemplates that the present freight and passenger rates, state and interstate, and the present scale of wages shall remain in full force and effect until and unless changed in the operation of the plan.

The plan, stripped of operating details, is based upon the following fundamentals, and they are embodied therein:

#### Fundamentals of Plan

1. A minimum rate of return on the property investment in the railroads, fixed by act of Congress, through rates adjusted as occasion may demand, in order that the securities of the railroads may be stabilized and their credit established on a basis necessary to secure the money to provide to the shippers and travelling public adequate facilities and service;

2. Recognition that a fixed return through rates that will enable the average railroad to receive an adequate return on its invested capital is not possible without giving to the more favorably situated railroads more revenue than the public will sanction, or more than would represent a fair return on its property. The earnings of railroads in excess of a fixed reasonable rate of return to be applied as provided in the following section.

3. A distribution, under the control and jurisdiction of the Interstate Commerce Commission, of a percentage of the fund above provided, that railroad employees shall receive the benefit of profit sharing, by insurance, or by such other legal methods as may be determined upon; likewise a distribution of a percentage thereof among the railroads earning it, and under the plan, and in furtherance of incentive and initiative by establishing operating efficiency standards; for certain improvements to railroad property, under restrictions, not to be capitalized in rate making; and for other purposes defined in the plan;

4. A corporation, created by act of Congress, operated without profit to the railroads, and under federal control, directed by trustees composed of the nine Interstate Commerce Commissioners and eight railroad men, to finance in the present emergency, such equipment as may be purchased by it from the Railroad Administration and allocated to the railroads, and to furnish an immediate means for assisting in financing the return of the roads; continued as a permanent means for mobilizing and purchasing equipment to be leased to the railroads; to provide a management or

agency to continue or put into effect the joint use of terminals, unification of facilities, re-routing of freight by pooling or otherwise, and to continue or adopt such methods of operation as may have been found to be successful and expedient during federal control; to furnish a standing, trained and efficient means for immediate mobilization of the railroads for war purposes without additional legislation.

5. Federal regulation extended through the Interstate Commerce Commission as at present established, co-ordinating therewith subsidiary commissions as regional commissions, the members thereof selected equally from the two leading political parties appointed from and sitting in the six traffic territories as at present defined, giving to such bodies the determination of rates and regulations. The right of appeal is given to the Interstate Commerce Commission, which may be designated Commission of Appeal.

6. Continuation of rate committees composed of representatives of both railroads and shippers in defined territories, to primarily consider and pass upon all changes in rates requested by either railroads or shippers and before being filed with the regional commissions or Interstate Commerce Commission.

7. Co-ordination by the Interstate Commerce Commission, of the work of the state commissions, as far as the limitations of law, and the legislation provided under the plan will permit, with that of the regional commissions. The adjustment of intrastate rates to the requirements of interstate commerce as prescribed through interstate rates is vested in the federal commissions.

8. Regional commissions act as boards of conciliation for the settlement of wage differences between the railroads and their employees. In default of settlement such commissions shall appoint two arbitrators, the employees naming two, the four so selected naming the fifth, if required. Appeal may be taken to the Interstate Commerce Commission; the findings not to be compulsory unless mutually agreed beforehand. A fixed return being provided under the plan, expenditures for wages or other elements entering into expenditures are supervised by the commissions.

9. Future issues of railroad securities supervised by the regional commissions and the Interstate Commerce Commission.

#### Other Plans That Have Been Proposed

Having stated the fundamentals of our plan, it becomes necessary, before entering into the details thereof, to discuss some of the propositions that have been submitted to your committee from other sources. Their fundamentals are:

1. Compulsory federal incorporation of railroads;
2. Provision for a new cabinet officer, to be known as the secretary of transportation;
3. Regional railroad companies;
4. Withholding from the government the initiation and determination of rates, at the same time asking that such rates shall provide sufficient revenues.

#### 1. Compulsory Federal Incorporation

Compulsory federal incorporation necessitates, in the opinion of many able lawyers, the sale of existing railroad companies now organized under state charters to companies to be organized under federal charters. Such federal charters would be authorized by act of Congress, always subject to amendment at any time, and would likely contain a recapture clause under which the government could acquire the railroads on its own terms by probably taking from them the right of appeal to the courts for an adjustment of their affairs. No railroad is justified in surrendering legal rights its present status gives it for advantages alleged to be attained by federal incorporation, and thereby leave open any such avenue of menace to property rights.

The power of Congress to make federal incorporation com-

pulsory is doubtful on constitutional grounds. Endless litigation would ensue in which the states would participate to contest the abrogation of their right to exact the performance on the part of railroads of certain obligations assumed by them as conditions imposed in return for franchise rights that had been granted to them by the states. Furthermore some of the states own stock of railroads and would likely join with other stockholders in resisting any such proposal.

## 2. Cabinet Officer—Secretary of Transportation

In addition to federal incorporation it has been proposed to create an additional cabinet member who shall be secretary of transportation. The powers proposed to be conferred upon this official are autocratic to an extent beyond those given by the Congress, even in times of war, to the cabinet officer who became director general of railroads. For Congress did fix a standard return as rental for railroad properties, whereas it is now suggested that the "unifying" and other powers now possessed by the present director general, be conferred upon this new official almost without limit. The return the owners of the securities shall receive on their investment is left entirely unprovided for, excepting to express in generalities that sufficient revenues shall be provided. The powers proposed to be given to the secretary of transportation, who largely supersedes the Interstate Commerce Commission in many respects, are sufficient to practically disable the railroad structure if the office should be filled by a man untrained in the technical necessities of the case. The provision that this official shall have under him a board to decide labor disputes, no matter from what interests such board is selected, is to confer an opportunity for political favors and control dangerous in the extreme. Furthermore, this board would not be responsible for the control of rates, from the proceeds of which the employees of the railroads are paid. It is highly necessary that the governmental agency charged with the responsibility of finding the money to operate the railroads, through rates, should supervise the questions of labor in respect to its fair compensation, and to provide the money wherewith, as a part of the railroad structure, it is to be paid. We live under a partisan form of government. A proposal to turn these properties over to a newly appointed cabinet officer with the political power possible under such proposal would seem to substitute a political form of control for a non-political regulatory body, like the Interstate Commerce Commission.

It would be unfortunate to create a situation under which these great properties might be carried into politics by placing them under a cabinet officer, subject to change every four years, and in the present case in two years. It would make the railroads the political center of the presidential campaign soon to open.

The railroad problem is altogether too extended, not to require that the responsibilities of working it out shall be lodged with a body of trained men, such as the government now has in the Interstate Commerce Commission, and the railroads now have among them.

## 3. Regional Railroad Companies

It has been proposed to organize five regional railroad companies and cause the railroads operating in the respective regional districts to exchange their stocks for the stock of the district or regional company. Then it is thought a rate can be made that will work out a fair return on the regional company's stock, or on the investment in the property of the regional company. The objections to the regional plan may be stated:

(a) The area of each of the five regional districts suggested would be more than the area of England and France combined. England and France are densely populated and

their railroads serve most of the area required to be served, whereas in this country a large portion of the area of many of the regional districts suggested will be found not to be fully served by railroad facilities; the concentration incident to this plan must necessarily check agricultural and industrial development to be had chiefly through individual initiative and incentive in railroad construction, operation and management.

(b) Negotiations leading to the exchange of stocks of all of the railroads into the stock of the regional companies would be endless. It would result in a court settlement before it could be accomplished—long drawn out litigation and years of turmoil during which the railroad shippers, the traveling public and the security owners would all suffer.

(c) It draws the railroads closer to the general principles involved in government ownership. It saps initiative and incentive by combining into five areas, several of them largely undeveloped, all railroads under five managements which the plan proposed provides shall be largely governmental; why not, therefore, follow the plan devised by many advocates of government ownership, by forming one large company and take over the railroads? Practically the difficulty of bringing about one complete consolidation of all the railroads is no greater than that of five regional consolidations; the latter having all the disadvantages of limitation of service and facilities incident to concentration and reaches the point where further contraction would make little difference. It would result really in five government ownerships instead of one, with the money supplied by private means.

## 4. Withholding from the Government the Initiation and Determination of Rates

It seems hardly necessary to point out that when the government is asked to provide *sufficient revenues* to the railroads, the initiation of rates necessary to produce such return, if really given, should rest with the regulatory body responsible to the Congress and to the public for such revenues. The general proposition that rates must be "reasonable" and "fair" and "provide sufficient revenue," etc., has been discussed and protested before the Interstate Commerce Commission and elsewhere, ever since there has been a commission,—nobody has contested it, so far as known. But to *measure it in terms* is altogether a different matter. It is difficult to measure it, yet necessary, for results have not been satisfactory where it has been left for uninstructed men to decide the limitations of the words "reasonable," "sufficient" and "fair." The plan that suggests that the railroads initiate rates, to remain in effect unless and until suspended, does not define any method to produce the "sufficient revenues" which it asks for. Even under these conditions, if such return is to be expected, the body to *produce the return* should have full control over rates. But our plan goes further and provides for a *fixed* return and the method to produce it. To expect the Congress to define, by act, the *measure* of such rate of return and *instruct* the Interstate Commerce Commission to put the same in effect and see that it is continued, and then ask that the railroads shall *initiate and establish the rates* through which such defined return is secured, would certainly not be a reasonable proposition under such circumstances.

The security owners are more concerned in a method of fixing the "sufficient revenue," "reasonable" or "fair" percentage of return, than in seeing given to the railroads the *initiation* of rates, the control of which properly belongs to the regulatory body that would be charged with the adjustment of rates necessary to produce such a return. We feel that the feature of initiation can properly be exchanged for the suggested definite return.



# Railroad Hearings Before Senate Committee

Hines Says Roads Must Be Returned Unless Time Is Extended

—Security Owners and Brotherhoods Present Plans

WASHINGTON, D. C.

TWO NEW PLANS for the disposition of the railroads have been presented before the Senate Committee in Interstate Commerce during the past week. The most comprehensive one was that submitted by S. Davies Warfield, president of the National Association of Owners of Railroad Securities, which is published elsewhere in this issue, proposing a law to provide that rates shall be sufficient to produce a minimum return of 6 per cent upon the combined property investment of the roads in each of the three classification territories. The most novel one was that proposed by Glenn E. Plumb on behalf of the four brotherhoods of train service employees, providing for government ownership of the railroads and operation by a single corporation, one-third of the directors to be chosen by the employees, one-third by the officers and one-third by the President of the United States; earnings above fixed charges to constitute a trust fund to be declared as a dividend to the employees in proportion to their wages. The plan also has the support of other labor organizations. The brotherhoods also opposed the McAdoo five-year plan.

Walker D. Hines, director general of railroads, in addition to advocating the five-year extension of federal control and declaring that the railroads must soon be returned to their owners unless the extension is adopted, also outlined briefly a permanent plan which he thought might be worked out during the five years, for grouping the railroads into 6 to 12 corporations with a minimum guaranteed return and a profit-sharing plan for earnings above the guarantee.

Mr. Hines took up one at a time the various orders which have been objected to by Clifford Thorne and others as examples of the exercise of arbitrary power. He said that while it was necessary to put the 25 per cent increase in rates into effect without consulting the interests affected, the various revisions in rates since that time have been conducted in such a way as to give the shippers ample opportunity to present their case. The Division of Public Service and Accounting had been appointed to represent the interests of the public and all changes in rates were referred to it before being put in effect by the traffic department. In important cases, such as the increase in express rates, the consolidated classification and the proposed scale of mileage rates, the advice of the Interstate Commerce Commission had been sought and increases in intrastate rates had been submitted to state commissions. General Order No. 57, regarding the handling of grain claims, he said was intended to bring about a uniformity in practice pending the adoption of more permanent rules and represented the settled practice of a large part of the railroad mileage. He thought most of the criticisms of this order were unfair and misleading.

With reference to charges that the administration has been slow in paying freight claims, he said that under war conditions there naturally had been a large increase in claims, yet all the information he could get showed that claims had been handled better than they had been handled by railroads in the past. He presented a report from 16 representative roads showing an increase of 151,000 in the number of claims presented in 1918 and an increase of 206,000 paid.

Mr. Hines also referred to the criticism against General Order No. 18, requiring that suits be brought at the place of residence of the plaintiff or where the cause of action accrued, saying that this was intended to deal with a phase of the damage suit industry which had reached the proportions of a great evil and as a war measure to eliminate the

necessity of taking large numbers of railway employees away from their work to travel long distances to appear as witnesses. He mentioned the particularly large number of damage suits filed in Minnesota where conditions are so favorable to securing large verdicts against railroads that damage suit lawyers send agents all over the country to induce the filing of suits in that state. He mentioned a statement furnished by the Illinois Central of suits filed against it in Minnesota for claims aggregating \$1,360,000 on causes of action arising in other states where 13 of the plaintiffs resided in Kentucky, 18 in Illinois, 6 in Tennessee, 9 in Iowa and 1 in Mississippi. He also had a statement furnished by the Chicago, Milwaukee & St. Paul of 38 suits filed against it in Minnesota by non-resident plaintiffs for causes of action arising in other states and one of 52 personal injury suits against the Southern Pacific filed in El Paso for injuries sustained by non-residents of Texas in various states.

Mr. Hines said that while this order was a war measure it represented a fair exercise of the President's power under peace conditions, although perhaps the order ought to be revised in the light of new conditions. The general order against garnishment of wages of railroad employees, he said, represented the practice of all government departments. Regarding judgments against railroads, he said it was the policy of the administration to pay final judgments for causes accruing since the government took possession of the railroads, but that the administration has no authority to compel corporations to pay judgments for liabilities arising prior to government control and some corporations may have taken advantage of the situation.

An abstract of Mr. Hines' statement follows:

The purely executive function of operating the railroads to render the public transportation service is the primary responsibility which confronts the President. His operation of the railroads may incidentally be a protection to railroad owners or a convenience in reaching a legislative solution; but it is primarily and directly and daily and hourly the rendition of the public transportation service. From this standpoint, there are very grave difficulties in the way of successful operation throughout the 21 months' period, and unless these can be obviated through a reasonable extension, I believe Congress will decide that there is every reason in favor of the earliest discontinuance which can be effected in a reasonable and orderly way.

The emergency which necessitated the taking of the railroads has ended, or certainly will have ended when peace shall be formally declared. Certainly there will no longer be the need for unified governmental control for the transportation of troops and war supplies. The only remaining public need will be the ordinary need of rendering an adequate transportation service in time of peace. This does not in itself call for governmental intervention except to the extent that there may be temporary peculiar circumstances involved in the aftermath of the war.

If we assume that the proclamation of peace shall be made between now and July 1 next, it results that under the present federal control act government control cannot continue after April 1, 1921, and may end earlier than that date. With such a nearby limit there will be increasing uncertainty on the part of officers and employees every month that passes, growing out of their inevitable thought as to what can and will be their relations with the new manage-

ments. The results cannot be otherwise than a cumulative influence unfavorable to the most successful operation. It is obvious that when a transfer of management must take place in the near future, the sooner it takes place the better for the certainty and efficiency of the management.

Under any circumstances, administration of the railroads in face of such a near approach to a change in management would be difficult. But the difficulty promises to be greatly accentuated by several different factors. One is the natural relaxation of virtually our whole population from the patriotic tension. The very fact that virtually the entire population responded so magnificently to the sacrifices demanded by the war and to the inconveniences which came from unusual war control of the ordinary industrial activities makes all the greater the insistent desire to be relieved from any sort of inconvenience and to complain against the continuance of anything that can be connected with inconvenience during the war period. Of course, the Railroad Administration gets the full benefit of this changed attitude.

Again, we are involved in an effort on the part of Congress to find a permanent solution of the railroad question. This, of course, results in every advocate seeking to find in the present government control a reason to support the solution which he advocates. Since nobody advocates perpetual continuance of the present form of control the result is that every advocate of any sort of solution is tempted to point out that the present control is unsuccessful, even as a temporary condition, because any such argument helps in his estimation to support his contentions. In the aggregate the momentum of criticism in this direction constitutes a distinct additional psychological factor which makes for difficulty of successful operation under the present form of control.

Again, the country will be entering within the next 12 months upon a presidential campaign which will culminate in November, 1920. I do not see how it will be possible, despite the firm purpose of the Railroad Administration to afford an absolutely non-partisan administration, to avoid the Railroad Administration becoming the subject of a great deal of political discussion and criticism. I do not complain of this condition. But, nevertheless, it promises to make for unsatisfactory railroad service under the present form of government control.

Now it happens that all these unpromising factors are so related in point of time that if the railroads remain under federal control throughout the 21 months' period and that be not extended, these factors will converge in such a way as to produce a cumulative effect which will be very definitely adverse to the successful rendition of the public service.

#### Additions and Betterments

Another highly important practical reason is the situation as to additions and betterments. It is highly important that a railroad shall continually be improved and developed through the making of additional capital expenditures. Not only is this important in order to improve the public service, but it is doubly important now that a large railroad additions and betterment program should be carried out in order to stabilize industrial conditions while we are passing through the period of readjustment. But with a change of control so near, the opportunity for carrying out an adequate program is largely lacking. Of course, the Railroad Administration will be glad to go forward with the betterment work to whatever extent it can get the assent of the corporations, but with control to end so soon it will not feel justified except in urgent matters in proceeding where that consent is not obtainable, and that consent will not be forthcoming in many important matters when the corporations feel that they will so soon be back in charge of their properties and that they can then proceed to develop them exclusively according to their own ideas. Indeed the corporations may well feel that they would rather wait in the hope of getting lower

prices even though in the meantime business suffers severely by the cessation of industry.

#### Temporary Continuance Not Necessary

The next phase of the matter is the argument that the President must retain possession of the railroads for the protection of the companies pending permanent legislation. The argument seems to be that an early return of the railroads before the adoption of legislation would result in a chaotic condition which would involve disaster to the credit of the railroad companies. If we admit that the re-establishment of private operation under the laws as they already exist would be an evil, it is hardly a wise and prudent remedy to insist upon continuing a form of railroad operation which is not calculated to give satisfactory service to the public and which promises to become increasingly difficult with every month. To avoid confusion I wish to make it clear that there is no such basis whatever for the assumption that I have proposed to recommend the relinquishment of the railroads under circumstances which would create widespread bankruptcy. Indeed, I think the argument that has been made that an early relinquishment will create such widespread bankruptcy and consequent chaotic financial conditions defeats itself, because it is evident that no department of the government wishes to produce any such condition. My belief, however, is that unless there should be a very serious falling off in business the situation will readjust itself in a comparatively few months so that a return of the railroads on a basis of the rates established by the Railroad Administration will be entirely admissible so far as the general financial situation is concerned.

#### Relinquishment Will Not Be Precipitate

My own thought is that whenever an appropriate time shall approach, due notice of the step will be given and the relinquishment will be made in an orderly way, so as to afford a reasonable opportunity for the transition. The further question remains as to whether there is anything in the legal situation as to the rates or anything in the arrangement of the indebtedness of the railroad companies to the government which would make it unjust to the railroad companies to make a relinquishment prior to the end of the 21 months' period without new legislation. To illustrate this let us look at the carefully thought-out proposals of the Interstate Commerce Commission. I should think it would be fair to assume that those proposals would come nearer to receiving congressional approval than any other definite plan for a permanent solution that has been offered. Let us assume that in six months the plan as outlined by the commission should become a law and that immediately the railroads should be turned back to their respective companies. I cannot see that the transition would be any less difficult or any more free from uncertainty than if the transition were made without additional legislation. There is nothing in that plan which will *per se* and instantaneously make conditions different from what they would be under the existing laws. For example, that plan does not propose to deprive state commissions of the power to deal with intrastate rates. It merely contemplates harmonious action with state commissions and that is entirely feasible under existing laws. Indeed, the commission now has a tremendous and far-reaching power over intrastate rates by reason of Section 3 of the interstate commerce act as construed and applied in the Shreveport case, and as a result of which the commission has actually prescribed the intrastate rates in a large portion of Texas. Of course, the provisions of the plan about merger of railroads, the limitations of railroad construction or any other feature will have no instantaneous effect upon the operating expenses or upon the operating revenues. With respect to those immediately pressing problems the commission can do under existing law whatever it could do under



the proposed law and it is perfectly safe to assume that the commission will be actuated by a desire to protect the situation.

My own deliberate prediction is that if the commission's plan shall be adopted, we will then find the companies imploring the government to continue to operate the railroads for a while in order to provide an entirely adequate period of readjustment. I believe that any legislation adopted prior to the end of the 21 months' control will leave the railroads just as much disturbed over an instantaneous transfer back to private management as they will be disturbed over such a transfer without any additional legislation.

#### Rate Structure Would Not Fall

It is not true that immediately upon relinquishment of the railroads there must be a return to the old rates. The Interstate Commerce Commission is on record that so far as interstate rates are concerned this could not possibly occur, and the existing interstate rates would continue in operation. The assumption has been suggested that such termination would result *ipso facto* in the re-establishment at least of those intrastate rates which have been created by statutes or constitutional provisions. There seems to be no reason for making such differentiation. If intrastate rates established by statute should *ipso facto* come immediately into application, the same condition would seem to be true of rates established under statutory authority. Indeed, the same result would seem logically to follow as to the interstate rates which had been filed by the railroads while under federal control in accordance with the interstate commerce act. It would seem that the rate structure initiated by the President would either fall as a whole or would remain in operation as a whole until some orderly modification should be made in pursuance of law.

It is not to be assumed that Congress intended that instantly upon the termination of federal control the railroads, in addition to being deprived of any compensation from the government, should also be deprived of any reasonable opportunity to sustain themselves through charging the only rates which have been fixed and reviewed in the light of existing conditions and the only rates which can possibly carry out the policy of Congress for certainty and publicity and for reasonable equality of basis as between interstate and intrastate rates.

Even if the courts would construe the congressional legislation as being so fragmentary in character as to admit of this extraordinary consequence, it would still be true that the Interstate Commerce Commission under its general powers could preserve the existing interstate rate structure and could set aside on the ground of discrimination the far lower intrastate rates which were in effect prior to the war. Therefore, we can only assume a chaotic condition by assuming the Interstate Commerce Commission would omit to perform its functions. I believe that unless the companies through a mistaken policy themselves create a needless state of alarm, a reasonable and orderly transition back to private management could be made in the next few months without additional legislation as well as under any that is likely to be obtained. It is true that companies could not at once begin mergers and pooling, etc., but those steps are not indispensable to immediate protection. What is indispensable is the preservation of a rate structure adequate to meet expenses and pay a fair return, and I firmly believe this could and would be successfully accomplished without additional legislation.

Another feature which appears to be urged in this connection by the railroad companies is that they will be enormously embarrassed in their financing by an early return of the railroads. Here again it seems to me that the railroads are creating an unnecessary alarm. It would be entirely feasible to make such reasonable terms as to the repayment

of their indebtedness to the government as to save them from financial embarrassment. If the commission's plan should be adopted they would have substantially the same financial problem that they would have if they were turned back without legislation. I can see that the adoption of the commission's plan would probably give some slight additional encouragement to railroad investment, but still they would have exactly the same problem of paying the indebtedness which they owe the government. As a matter of fact I anticipate that as conditions improve the companies will be able to finance to a greater and greater extent, and to diminish rather than increase their indebtedness to the government.

#### Advantages of Five-Year Extension

As to the actual rendition of the public service, the adoption of a five-year limitation instead of a two-year limitation will, in my opinion, make all the difference between satisfactory service and unsatisfactory service to the public. The five-year provision will postpone for at least three years the state of uncertainty and ferment which is already beginning. It will give the President for the next two or three years a stability of control which will go far toward fortifying the rendition of the public service against the state of the public mind that has inevitably developed at the end of the war. Likewise it will remove the necessity for pressing the permanent solution of the railroad question into the crowded period which will precede the next presidential election. There will be more time to get our bearings, more time to get the sober thought of the people as to what ought to be the permanent solution.

The discussions have assumed very largely that a five-year extension contemplates that no action toward a permanent solution will be taken until the end of five years; that everybody interested in legislation will sit down and do nothing and calmly await the expiration of the five years before undertaking to shape legislation. I do not think this ought to be the case or will be the case. I believe the study of the permanent solution will proceed in an orderly way, and I shall be very much surprised if at the beginning of the next presidential term the question shall not be taken up and promptly disposed of. It seems to me the natural development will be that during the first year of the next presidential term this great question will be settled and then a transfer can be made from the present federal control to the permanent form of management which may be adopted.

I think a three-year extension would accomplish a great deal to remove the difficulties, because even three years would segregate and spread out and in part dissipate the unfavorable psychological factors which under the 21 months' plan promise all to converge so as to do the maximum damage to the public service; and also the three-year extension would give opportunity for legislation immediately following instead of immediately preceding the presidential election. But I believe the five-year extension would be much better because it would give added stability.

#### Extension Does Not Mean Government Ownership

Viewed in this practical way I do not believe there is anything substantial in the argument that an extension of the time would necessarily mean government ownership. If a period of 21 months after the war will not mean government ownership, I do not see how a period of not exceeding five years would mean government ownership. The operating organization of every important railroad is preserved intact and the railroad could be turned back tomorrow or in five years from now and still its operating organization would be available to carry on the business without interruption under private management. Of course, in terminals there have been some consolidations of management, but undoubtedly they ought to continue under private control, and I do

not see any practical difficulty on this score unless the particular companies shall wish to put their separate interests above the general public interest, and in that event it will be an advantage to the public that the established terminal organization is a consolidated organization so as to make it more difficult for a separate and selfish development of the terminals. The only thing that will make against the resumption of private management at the end of five years or any intervening period between the 21 months and five years will be that as a result of unified control viewed under normal conditions, the public will reach the conclusion that a greater degree of unified control is in the public interest than can be accomplished through the medium of the large number of railroad corporations which in the past have controlled the railroads of the country. If the public does reach this conclusion undoubtedly we ought not to return to the old system and the public will have profited by having been given an opportunity to study the advantages of unified control. On the other hand, if the public feels that the advantages are less than the advantages of the multifarious railroad managements it will be entirely practicable to go back to the old forms of control.

We know that a large body of the people have a settled conviction that this question cannot be successfully disposed of except through government ownership. The arguments of the government ownership advocates are temporarily at a discount by reason of a reaction from all forms of government control. Now, is it the part of statesmanship to recommend a hasty settlement of this question in a period when the permanent convictions of a large part of the public are for the time being suffering a partial eclipse by reason of a purely temporary state of mind? A feeling prevails already that this question is being pushed now by the railroad executives because they feel that the "going" is especially good and that they had better make private management hay while the anti-government ownership sun continues to shine. I think it is a fair prediction that before any legislation can actually be shaped there will be a reassertion of the permanent views of that part of the public which insists on a greater degree of social control of the railroads and that this is going to defeat the adoption of any permanent program in the next two years. If this shall be the case there will be an outcry for an extension and in all probability the time will then have to be extended.

#### Government Operation Should Be Tested Under Normal Condition

I further believe that those who advocate government ownership and operation are entitled to have their case considered on its merits and not embarrassed by a necessarily misleading showing of the conditions of the present federal control. At this time, the only year of federal control has been a year of war; a year of heavy costs and of serious public inconvenience. There is a strong disposition to assume, therefore, that government operation under any circumstances means correspondingly heavy costs and serious inconvenience. Since government operation has been entered upon and since it is desired that it be continued to facilitate a satisfactory legislative solution, then my recommendation is that it be continued long enough to furnish a fair example of what can and what cannot be accomplished under government ownership in time of peace. So far we are not in a position to analyze fully even the results of the war year—the year 1918.

The year 1919 will be a period of readjustment. When the armistice was signed the railroads had been geared up as a war machine. Many things which were done to obtain the quickest and most effective results at whatever cost might be necessary can in peace time be done on a more economical basis. These things, however, cannot be changed overnight. For example, it was indispensable to place cars where they

were most needed and to repair them wherever they happened to be when they needed repairs. Cars can be repaired more economically in their home shops than in shops of other railroads because the home shops are especially adapted to repair the cars belonging to the home road. In the course of a few months it is believed this condition will make a material showing in the reduction of the cost of car repairs. But this is one of the processes of readjustment which cannot be done instantly and which will help to make the year 1919 a year of transition and, therefore, even its results will not be a normal showing of what can be accomplished under federal control.

Moreover, the year 1919 is a critical year from the general industrial standpoint. It is a year when the problem of unemployment will be exceedingly grave. Every government agency should deal with that problem in a comprehensive way so as to promote the general welfare and not exclusively with reference to making immediately the very greatest reduction in its own costs. This factor ought to govern largely the methods of the Railroad Administration, and in order to aid in stabilizing general industrial conditions the Railroad Administration ought not to enter upon processes of retrenchment so radical as to accentuate the general industrial difficulties.

I think this more deliberate policy is due to labor. On every hand there is a disposition to charge existing high costs to the increased wages. Practically all these arguments carry in some form the thought that these rates of pay are too high and ought to be reduced at the earliest possible opportunity. I believe these conclusions are unfair and that a method of dealing with this subject ought to be adopted which will give an opportunity to demonstrate their unfairness. A very large part of the heavy operating costs of the past year was not due at all to the high rates of pay, but to other factors brought about by the war. One was the abnormal cost of repairing cars to which I have referred. Another was the extraordinary turnover of labor due to labor being withdrawn for military purposes and labor being tempted into other lines of industry where much higher wages were paid. This led to less efficiency than could be expected of men who remain with reasonable permanency in the railroad work. The scarcity of railroad labor also made it necessary at times to employ labor which was far below reasonable standards of efficiency. It was also necessary in the times of war pressure to require a great deal of overtime work which called for time-and-a-half pay. All these various factors are being piled up together and charged to the present rates of wages. There is every evidence that the most cordial co-operation will be afforded by labor in rendering value received for the wages paid, but these conditions cannot be translated into reports of operation except by the lapse of time.

Another factor deserving serious consideration is that of the inland waterways. Under government control of the railroads the first beginnings have been made in developing what is actually practicable in the way of the economical utilization of some of the principal inland waterways. I believe it highly important that there should be a fair test of this subject and I do not look for a sympathetic test if the railroads are turned back to private control in advance of an adequate test. Undoubtedly this will be brought about if there is a reasonable extension of government control. I do not see how it can be successfully brought about otherwise, because I think mere legal provisions for co-operation will not accomplish the purpose unless the railroads wish to co-operate, and frankly I do not believe that under private management the railroads will wish to co-operate with the waterways in developing any traffic which the railroads themselves can handle without loss.

The extension of federal control would have a beneficial effect in stabilizing industrial conditions at the very time such stabilization is most badly needed. Railroad improve-



ments can be carried forward on an extensive scale and they not only afford indirect employment for a great many additional railroad employees, but they afford indirect employment for thousands of other employees. Here, then, we have the factor of rapidly increasing unemployment and we also have the potential factor of the great stabilizing influence of railroad improvement activity. If the period of government control be limited to the 21 months, the amount of railroad improvement will be minimized because of the shortness of the time within which to plan and do the work, the uncertainty of railroad credit, and the disposition of the railroad companies to defer improvements until the comparatively near date when they will again be in control. If the period be extended to five years steps can at once be taken to enter upon a much more comprehensive program, and I believe that the greatly increased credit of the railroad companies which will result from this additional certainty will enable us to get their active co-operation in financing an extensive program.

#### Views as to a Permanent Solution

On account of my responsibilities as director general of railroads I believe it will be excusable in me to lay before you my personal views as to the permanent solution of the railroad problem. I have been driven to the conviction that there must be a radical reconstruction of the whole scheme of private ownership and management if we are to avoid government ownership. While I think the advocates of government ownership ought to have a fair opportunity to have their case decided on its merits and in a normal piecemeal atmosphere, I have said this because of my belief in fair play and because I do not think any solution which fails to give the fullest opportunity for the consideration on its merits of every phase of the subject can be conclusive or permanent. But I do not personally believe in government ownership. I believe there can be a form of radically reconstructed private ownership with such close government supervision, including government representation on the boards of directors, as will give the public and labor all the benefits of government ownership and at the same time will preserve the benefits of private and self-interested initiative and will avoid the political difficulties which perhaps are inseparable from government ownership.

I do not believe the plans now before the committee will meet the fundamental difficulties. I believe that a far more radical treatment will be needed and that this treatment cannot be accorded in the crowded period of the next two years.

There can be no solution through the operation of the railroads by the numerous existing corporations with their widely varying financial structures. The deep-seated suspicion of the public and of labor that there is serious overcapitalization largely negatives all representations as to the propriety of any given level of railroad operating income. To perpetuate existing capitalizations means to perpetuate suspicion and unrest and will defeat any plan despite the other good qualities the plan may have.

No plan can be permanently successful which leaves railroad operations with a large number of different corporations, some strong and some weak. So long as this condition continues it will result that on any given basis of rates and wages some railroads will prosper to a great degree and others will fail. Whatever level of rates is adopted the public will be at a disadvantage either through impaired service on the poor roads or through being charged more than is necessary on the strong roads. The contrast will lead to continual discontent and dispute as to what basis of rates is correct and will largely tend to defeat any scheme of regulation.

The plan of private management proposed necessarily involves the idea that if one or many railroad companies happen to be exceptionally prosperous the entire exceptional profits remain with the company. This condition will make

the public always fear or suspect that it is being exploited for the benefit of private capital and will lead to continual insistence upon the railroads being operated exclusively for the public benefit. Also, similar suspicions will always encourage unrest on the part of labor. If any plan of private management is to be successful it ought to provide for the participation of the government and perhaps of labor in the profits in excess of some comparatively moderate return.

This country has settled down to the definite conception that railroads ought not to receive more than a reasonable return and also that they ought not to receive less. Practically, the standard is impossible of application under the proposed plan of private management. No matter how carefully rates may be fixed they are more likely to vary either above or below a fair return than to produce the fair return and no more and no less. A prosperous year may produce too much and before the rates can be changed the exceptional prosperity may have disappeared. Of course, one company may get more than a fair return and another less. If the government adopts the proposed plan it will be doing a vain thing. It will be proceeding on the idea that it is insuring the performance of an adequate transportation service for a fair return, but it will be providing machinery that never will and never can provide the desired fair return. The logical thing to do is for the government itself to ascertain what the fair return ought to be and to guarantee that to the railroads, and then if it wishes the benefit of the increased efficiency which may probably be expected from private initiative it can permit a moderate participation in any profits in excess of that return.

#### Government Should Guarantee Fair Return

It is recognized that it is indispensable that capital invested in railroads shall yield a sufficient return to attract additional capital. But the proposed plan involves the whole subject in so much confusion and uncertainty as to make the prospect of obtaining additional needed capital highly unfavorable. If the fair return principle be adopted in theory but fail in practice, the result will be either that the public will suffer serious inconvenience through railroad credit being impaired so that the necessary new capital cannot be raised, or the public will suffer serious loss through being compelled to pay a great deal more for transportation than is necessary. The real object can be obtained by the government itself assuring once and for all a fair return. Of course, a definite assurance of this character will necessitate a much lower total compensation than would have to be provided through the haphazard plan of a theoretical fair return administered through impossible machinery. Therefore, there would be a large saving to the public in a definite government guaranty and an enormous benefit in the way of creating a real and reliable credit instead of one involved in the greatest uncertainty.

The proposed plan of private management does not meet any of these fundamental needs. If adopted all these needs will remain unsatisfied and will operate with cumulative effect to produce a failure of the entire regulatory scheme and in a short while the whole railroad subject will have to be dealt with again. Indeed, the very fact that the proposed plans still leave the public suspecting that unjustified capitalization is enjoying a return, and still admit of instances of some corporations deriving apparently excessive returns even on their existing capitalization, will go a long way towards defeating the concessions which it is proposed to make in favor of the railroad corporations, and the conception will probably become increasingly clear that the desired certainty of sufficient return will not be assured. Again, the proposals of the present plans for pooling of traffic under certain conditions and for unification of terminals and facilities and for combined control of cars and traffic in time of emergencies are going to prove largely illusory. It is ex-

ceedingly difficult to see how any compulsory plan along these lines can be worked out and in practice it will mean there will be no unification except when rival companies can decide that it is distinctly to their own interest to unify or except in very extreme emergencies. It will be difficult to induce a strong enterprise to dilute itself by merging with the weak one.

It may be said that my observations necessarily lead to government ownership and operation. I do not think so. I believe that all the objects which I think must be achieved can be accomplished through the creation of a comparatively few railroad companies which will have capitalization equal only to the real value of the property, and which will have a moderate guaranteed return with the right to participate moderately in any additional profits. In this way I believe it would be entirely practicable to preserve whatever advantages there may be in private management and at the same time meet the difficulties which I have already pointed out.

I do not believe that the radical changes which in my judgment are indispensable can be made without prolonged study and debate. I am, therefore, forced to the conclusion either that there will be no comprehensive legislation in the next two years or that any legislation adopted will be so much like the present system as to offer no hope for a permanent solution.

A great deal has been said about the claims of the railroad security holders to a reasonable degree of protection. I know of nothing which would more satisfactorily protect their situation than a five-year extension because that will be ample to cover not only the period of industrial readjustment but also the period of legislative readjustment. I think any plan which still leaves the question whether the railroads will or will not get a fair return subject to all the fundamental difficulties which I have pointed out would leave the position of the security holders in doubt and uncertainty. Indeed, there will be serious question whether any legislation will be adopted in the 21-months period. I cannot imagine how this can be otherwise than prejudicial to the legitimate interests of railroad security holders.

There has been much criticism of the Railroad Administration by the representatives of the railroad executives. I do not believe that any issue now before this committee can be helpfully illuminated by any discussion of the details of these matters, although, of course, I am prepared to deal with any of them which the committee thinks important. There was no purpose whatever on the part of the Railroad Administration to take any action other than that reasonable and appropriate to meet the necessities of the war situation. In the staff of the Railroad Administration there were assembled men whose life-long experience had been with the railroad corporations as well as others whose life-long experience had been in the representation of the public or of labor. The conclusions reached were not based on hostility to the owners of the properties or on a desire to treat them otherwise than fairly or on any desire whatever except to do what was regarded as reasonably necessary and appropriate to meet the war purposes.

Senator Kellogg disagreed with Mr. Hines' statement that the rate structure would continue after the termination of federal control and pointed out that a state in the northwest had as recently as January 30 passed a law establishing scales of intrastate rates lower even than those in effect before the increase ordered by the Railroad Administration. Mr. Hines said that such a statute was clearly invalid during the period of federal control and that the rate structure established during that period would apply until organized action was taken to change it. Senator Kellogg said the railroads would have to go into the courts to prevent the states from asserting their own rates, but Mr. Hines thought the Interstate Commerce Commission could protect the situation.

The senators expressed much more interest in Mr. Hines' suggested plan for a permanent solution than in his argument for the five-year plan. Senator Townsend asked why such a plan could not be adopted in less than five years. Mr. Hines said that it involves such fundamental changes that it is extremely improbable it could be adopted within the 21-months period and he thought that an interim control by the government was necessary while the plan was being worked out. Senator Townsend asked if the five-year plan would in any way test the suggested permanent plan or demonstrate anything except the plan under which the administration is now working. Mr. Hines said that the present plan would test to some extent the regional idea because the roads are now operated in seven regions, but that it was necessary primarily to improve the service and stabilize conditions while permanent legislation was being considered. He said he had thought of six or twelve regional corporations for the permanent plan and that this would be better than a single corporation because it could give the benefit of different ideas and methods. Senator Robinson asked whether Congress should not proceed to work out the permanent plan now. Senator Pomerene asked Mr. Hines if Congress could continue a war measure into times of peace for the purpose of working out a policy. Mr. Hines said that he thought this would be a perfectly valid exercise of the power to regulate commerce and promised to submit a brief on the subject.

Senator Pomerene asked why Congress should not legislate at once on a permanent plan compelling the railroad companies to carry out the desired requirements. Mr. Hines said that it was necessary first to meet the fundamentals of the case and provide for a complete reorganization of the railroad companies. While he admitted that a start could be made on such a plan within a year or two, he thought it would be better to take a little more time and work it out on a permanent basis than to attempt to do it too quickly. He said the public sentiment toward the railroads is made up, not by the results for the railroad system as a whole, but by looking at particular railroads. One man looks at a railroad that has not enough money to enable it to give good service, and another looks at a railroad that is making large profits and both men are dissatisfied.

Senator Underwood asked if a plan under which the Interstate Commerce Commission should make up each year a budget of the expenses for each group of railroads and make rates sufficient to provide the expenses and produce a fair return would not stabilize railroad securities. Mr. Hines thought such a plan would receive less support unless it were preceded by a reorganization of the railroads into fewer companies with government representatives on the boards of directors. Senator McLean said that most of the advocates of the five-year plan are advocates of government ownership who believe that it would be impossible to return the roads to their owners after five years. Mr. Hines said that the difficulties incident to a return of the roads were exaggerated.

In reply to questions by Senator Kellogg, Mr. Hines gave some additional information about the financial relations of the Railroad Administration and the railroad companies. Senator Kellogg said that in order to understand the present situation it was important to know these relations, and asked how much the government had loaned to the railroads from the revolving fund. Mr. Hines said that the accounts had not yet been settled in full, but that when the railroads received their rental, and a portion of it is applied on payments for capital expenditures, it was estimated that the railroads would owe the government \$290,000,000 on account of additions and betterments. Senator Kellogg persisted in getting a division of the advances made by the Railroad Administration as between actual loans and payments on account of rental. Mr. Hines said the rental for the Class I roads was estimated at \$890,000,000, and up to December



31 the administration had specifically paid on account of rental or compensation to the companies \$253,277,000, and had loaned out of the revolving fund \$125,817,750 in addition to about \$69,000,000 loaned out of operating receipts, and that after making some other deductions and adjustments the government owed the railroads \$381,000,000.

Senator Kellogg asked how much the War Department owed the Railroad Administration for transportation. Mr. Hines said that up to December 31 this amounted to \$53,202,000 on bills rendered and approximately \$28,000,000 not definitely stated, making a total of \$81,889,000. He said it takes approximately five or six months and sometimes longer to get these bills through the War Department. Senator Kellogg also asked for a complete statement of the loans from the revolving fund, the loans from operating revenues, the amounts the government owes the railroads, and the amounts actually paid to the railroads in 1918, which Mr. Hines promised to furnish.

In reply to another question of Senator Kellogg's Mr. Hines said that maintenance of way and structures during the past year fell short of the government's contract obligation but that complete adjustment between prices and wages for the year and for the test period had not yet been made. The indications are that maintenance of equipment will show ahead of the government's obligation.

#### The Brotherhood Plan

In presenting the brotherhood plan, on February 7, Mr. Plumb first outlined objections to the proposal for the creation of a secretary of transportation. To create such an office, he said, authorized to enforce a governmental policy that shall secure adequate returns on the capital invested in the railroad industry, would be subverting the entire purpose of the government. It would be regulating the people in the interest of capital. If it be done for the railroads we would soon be asked to have a regulating department to secure adequate returns for capital invested in the steel business or the packing business.

Mr. Plumb based the objection to an extension of the five-year period solely on the order issued by the director general prohibiting political activity on the part of railroad employees. "We earnestly protest," he said, "that this demanded deprivation of the political rights guaranteed to us by the Constitution is a sufficient reason in itself why the five-year extension asked for by the director general should not be granted. We most vehemently object to being in any way barred from the full participation in the affairs of this nation in which we are so vitally interested. We must have the same opportunity to organize for the accomplishment of a legitimate political end that our adversary enjoys. We must have the same freedom to contribute all our resources to procure legitimate political action and we must have the same right to select as our representatives in the United States Senate or any other legislative body those who share in our convictions and whom we deem best able to give expression to our political beliefs."

Advocating government ownership of the railroads, Mr. Plumb said the demands of the investor are fully met when he obtains complete security with adequate returns. The security offered by a government bond is the best possible security and the government can finance its undertakings on a rate of return from 25 to 50 per cent below the rate demanded when the same undertaking is financed by private corporations. Consequently, the difference between the cost of the capital invested in properties under government ownership and a like amount of capital invested under private ownership is an unnecessary expense, other things being equal, and unless fully compensated for by other economies made possible under private ownership which are not possible under government ownership, should determine this question in the interests of the public as well as in the interests of

the investors. Government ownership with a fixed rate of return, he said, would remove the security owners from politics and if all the railroads were owned by the government as one single system all the difficulties now arising by reason of diverse ownership and of conflicts between state and federal authority would be eliminated.

As for operation, Mr. Plumb said: "It seems to be the consensus of opinion that private operation is to be preferred to government operation for almost every reason. First, to take the roads out of politics; second, to promote efficiency, and, third, to prevent carelessness in regard to expenditures which frequently, almost habitually, accompany government operation." If the government owned the properties and financed their acquisition, construction, equipment and working capital, then the operating corporation would not be required to furnish any capital whatsoever. Its operating ability would constitute its sole capital. It should be organized under a federal law. It should be required to operate the properties under the full regulatory power of the government, to which it should account for all of its operations and expenditures. It should be required to meet all costs of operation and fixed charges upon capital employed which had been guaranteed by the government. A certain agreed percentage of the net results of operation should belong to this corporation. The stock of this corporation should be held in trust for the benefit of the employees. The earnings of the corporation should constitute a trust fund to be declared as a dividend upon the amounts paid to the labor which it employs, every employee receiving that proportion which his annual wage bore to the total annual compensation of all employees. The affairs of the corporation should be administered by a board of directors, of which, possibly, one-third should be elected by the employees, one-third by the appointed officers and one-third by the President.

Under the old system of private ownership and operation, Mr. Plumb said, the hope of increased returns actuated only those individuals who might reasonably be expected to share in those returns. All other employees were merely actuated by fear that they might lose their jobs or might face a decrease in wages. Hope of a share in the profits would promote a morale among employees that has never been approached in any industrial enterprise. A wage board and boards of adjustment similar to those organized by the Railroad Administration should be organized to investigate disputes regarding wages or conditions of employment, and their decision should be binding and final. This would provide a means for settling all wage questions in such a manner that the occasion for strikes or lockouts would be effectually removed.

Mr. Plumb also suggested a method for providing for an automatic reduction in rates. Assuming that the capital invested amounted to \$18,000,000,000, the fixed charges at 4 per cent would be \$720,000,000. Assuming the gross operating revenue as \$4,000,000,000 and an operating ratio of 70 per cent, the net operating revenue would be \$1,200,000,000, which would pay the fixed charges and leave \$500,000,000 which should be divided equally between the government and the corporation, labor receiving \$250,000,000 for a dividend on the payroll. Provision could be made that whenever the share received by the government exceeded 5 per cent of the gross operating revenue, the Interstate Commerce Commission should adjust the scale of rates in such manner as to absorb the 5 per cent. This system, he said, would soon reduce the level of rates to a point where the net revenue would not exceed the requirements of the service and where the surplus net revenue not absorbed by rate reduction should be available either for extensions or improvements without increase in fixed charges or with a reduction in the outstanding capital so that the ultimate effect would be complete retirement of all capital and the reduction of rates to the lowest point essential to paying the cost of operation.

Mr. Plumb devoted a large part of his argument to the question as to the amount of capital upon which the railroads are entitled to compensation. He declared that the investment actually, honestly and prudently made measures the full extent of the property interests which railway corporations may possess and that all values in excess of this amount are retained for the public and which the public could not be compelled to buy. He proposed that the government acquire the stocks of the companies at their present market value, which he estimated at \$5,000,000,000, by exchanging government bonds for them.

#### State Commissions Ask Legislation at Special Session

Charles E. Elmquist, president of the National Association of Railway and Utilities Commissioners, appeared on behalf of the state commissions on January 30, declaring that remedial legislation for the protection of the public should be enacted before March 4, but that a final solution of the railroad problem cannot, and in justice to all interests should not, be adopted by this Congress. He said that centralization of all power over the railroads in the hands of one individual during actual warfare is dangerous, but in times of peace it becomes a positive menace which should be removed at once and he, therefore, recommended the repeal of section 10 of the control law to take from the President "the alleged right" to set aside state or federal laws or the orders of commissions applicable to common carriers and to restore the suspension powers of the interstate Commerce Commission. While the state commissions are of the opinion that the federal control act did not deprive them of jurisdiction over state rates, he said not one of them made any attempt to exercise their authority during the war, but for the purpose of avoiding litigation now they want the law made specific.

As to the five-year plan Mr. Elmquist said the railroads were taken over for war purposes only. They have performed that function well. The real purpose of government control having been accomplished, good faith and square dealing demand the return of the roads to their owners at a time when it will not embarrass the country or seriously cripple the transportation machine and under such legislative safeguards as the people may approve. December 31, 1919, would afford ample time for this purpose if a special session of Congress is called to consider the railroad problem. Congress should either amend the federal control act or adopt a joint resolution fixing the date for the return of the properties. The state commissioners oppose the five year plan, Mr. Elmquist said, for the following reasons, among others:

1. It continues the present guaranteed compensation of practically a billion dollars per annum for five years, as well as the prospect of the present high operating cost.
2. It continues in time of peace an alleged war power to set aside state and federal laws, to initiate rates, to fix wages, route traffic, and consolidate properties and terminals.
3. It continues the uncertain and chaotic condition of rates and practices whereby shippers are denied the right to be heard before rates go into effect and it purports to suspend laws for the regulation of common carriers.
4. It thrusts prominently into the public forum a discussion of government ownership before the valuation of the railroads has been completed by the government and before it is possible to know what they are worth.

Mr. Elmquist argued at length as to why the states should continue to regulate local rates and service and opposed the establishment of a central bureau at Washington to handle such matters, but he thought a satisfactory plan of co-operation could be worked out between the state commissions and the interstate commission. He also declared that the railroads need not fear that the commissions will fail to recognize the changes in conditions which have required higher rates in case they are again brought under the jurisdiction of state regulation.

As to the various plans for changes in regulating methods for the future, Mr. Elmquist favored the prompt merger of the railroads into a unified system, in times of stress or emergency under provisions to be established by Congress, and the merger within proper limits of carriers' lines and facilities to such extent as may be necessary in the public interest to meet the reasonable demands of commerce with the approval of the Interstate Commerce Commission. He also favored the consolidation of terminal facilities whenever the public interest will be promoted thereby, but believed that this question could very properly be passed upon by state authorities. He favored the limitation of railroad construction to the necessities and convenience of the public under regulation of the federal authorities in addition to that of local authorities. He favored the control of securities by the federal government, but under a plan which would require copies of applications to be filed with state authorities, thus enabling them to submit evidence and recommendations. The state commissions also, he said, would favor any proper plan which may be devised for bringing the regulation of interstate carriers closer to the people. If Congress considers it advisable to do so, they then believe it could best be done by increasing the membership of the Interstate Commerce Commission and by requiring one or more members of that body to hear and try all cases in the affected localities. In the absence of such a plan, it might be advisable to make of each state commission a regional commission to act for the federal commission in all proper matters.

The proposal for a secretary of transportation was opposed on the ground that it would make the railroads the football of politics and would make the administration responsible for rate and wage increases and decreases, the quality of service and anything else that might affect the public or the railroad interests. Federal incorporation was opposed because of its legal complications and because it would force the sovereign states to go to Congress for the preservation of the right of taxation and the exercise of police powers. Consolidations of railroad systems and terminals, he said, would place a higher power in the hands of a few men and would be inimical to the public interest unless the federal and state control is made commensurate with the danger involved. If the public policy is to be reversed, the authority of public officers over rates, service, capitalization and expenditures should be enlarged.

#### Views of Other State Commissioners

Mr. Elmquist was followed by L. B. Finn, chairman of the Kentucky Railroad Commission, who had views widely at variance with those of the state commissioners generally. Mr. Finn favored government ownership of the railroads, but severely criticized many of the actions of the Railroad Administration during the past year. The Railroad Administration, he said, had proved nothing except that it should not be continued, but he placed the blame on the railroad men who had played so prominent a part in its organization. He admitted that he thought a large share of the public was now opposed to government ownership because of the things done by railroad men during the past year, which he ascribed to an effort on their part to discredit public ownership.

R. Hudson Burr of the Florida Railroad Commission also presented an individual statement. He said he concurred with the statements made by Mr. Elmquist, but had some additional criticisms of his own to make of the acts of the Railroad Administration, which he said reflected what might be expected if government control were continued. He said that General Order No. 28, if the provision requiring state rates to be raised to the level of the interstate rates before the percentage increase was completed had not been withdrawn, would have caused increases ranging up to 650 per cent because the interstate rates which it was proposed to take as a basis were mainly paper rates. He also objected



to many other features of the rate situation, which he said had been handled by officials in Washington not familiar with state conditions. Thousands of shipments, he said, have moved under rates which represent overcharges because the traffic officials of the Railroad Administration did not know what the rates were and the administration failed to make reparation. He said that government operation has brought about a great increase in the efficiency of employees and has greatly lessened the morale of the whole railroad organization by removing the incentive to efficiency and the friendly rivalry between railroads, and by removing the actual power too far from the scene of operations. "Division superintendents have become clerks to regional directors who receive their

instructions from Washington," he said. "The individuality of the railroads has gone, engulfed in a questionable experiment which Mr. McAdoo admitted would require five years more to prove its success while the public suffers poor service, inattention and increased rates." He did not criticize the railroad men, he said; they were merely human when they were willing to let the other fellow take the responsibility for the success or failure of new theories instead of standing up for what they believed to be right. He opposed the proposed scales of standard class rates, which he said would release the transportation charges on the bulk of the traffic in his state more than 100 per cent over the rates provided by General Order No. 28.

## Annual Reports of the Regional Directors

### Estimates of the Economies Effected and Examples of Co-Operative Action Under Unified Control

THE RAILROAD ADMINISTRATION is making public one at a time reports covering the operations during the past year submitted to Mr. McAdoo by the regional directors. Following is an abstract of the reports of A. H. Smith for the Eastern region, N. D. Maher for the Pocahontas region, and B. F. Bush for the southwestern region.

#### Eastern Region

The economies effected in the Eastern region during the year ended December 31, 1918, so far as they can be stated in figures, aggregate \$23,248,000, as follows:

	Estimated saving per annum
(a) Unification of terminals and stations.....	\$4,172,000
(b) Elimination of passenger service.....	12,190,000
(c) Reductions in organization, as contrasted with the same under corporate control.....	3,677,000
(d) Miscellaneous economies, the result of causes other than above .....	3,209,000

There has been a marked increase in eastbound freight traffic with a corresponding decrease in westbound, increasing the empty car mileage, and this, with adverse weather and other well-known conditions has resulted in a high percentage of expenses. The saving in passenger train expenses above noted was made by eliminating 16,253,914 passenger train miles. The decrease in the mileage of Pullman cars amounted to 41,229,702 car miles. Passengers carried one mile increased 4.7 per cent. Troops carried in special trains numbered 3,308,496, and the miles run by these trains aggregated about 2,000,000. The troops carried across New York harbor by the railroad boats numbered nearly 2,000,000.

The Eastern Regional Purchasing Committee is standardizing materials and blanks and making a uniform organization of the stores departments. Since the ending of hostilities, stocks of material have been reduced. Rerouting of freight has saved approximately 7,800,000 car miles, an estimated money saving of \$470,000. This saving, however, has been partly offset by rerouting of freight to avoid congestions which lengthened the haul of such traffic. Shipping days have been generally introduced, and 1,232 additional through cars have been scheduled weekly. It is estimated that freight transfer houses will be relieved annually of 1,780,000 tons of freight by this greater economy in loading. The average load per car, in the Eastern region, for the first ten months of the year, shows an increase of 2.8 tons. Telegrams are now sent by the Morse system on 3,200 miles

of telephone circuits, thus avoiding the expenditure of \$160,000 for the construction of new wire lines.

The Freight Traffic Committee is revising freight tariffs wherever possible, so as to secure the loading of freight cars to their full capacity, and is saving \$1,000,000 a year by consolidation of tariffs and other economies in that line. The Passenger Traffic Committee is saving \$351,344 annually by curtailment of advertising and economy in timetables. Consolidation of freight service, the combining of single track roads into double track operation, and reductions in local train service will show a saving of \$664,000 yearly.

The number of cars of freight diverted to avoid congested routes and terminals during the year was 75,000. From the Pittsburgh gateway freight was sent East over the Buffalo, Rochester & Pittsburgh, the New York Central and the Reading. Freight for New England has been sent by the Boston & Maine so as to relieve Maybrook and Harlem River, and freight from Pennsylvania for New England has been sent over the Delaware & Hudson.

Carload freight from the West has been diverted from the Michigan Central and the Grand Trunk to the Pere Marquette. Westbound freight has been diverted to boats at Buffalo to relieve the rail lines.

The movement of the great volume of export traffic at New York City has been facilitated by unified operation of all the railroad-owned boats, the discontinuance of free lighterage and the direct loading of a large number of steamers at railroad piers. Reconsigning and diversion bureaus have been established to meet the demands of shippers for current information concerning the movement of their shipments.

The locomotives received during the year aggregate 896, and the total number in service on November 1, was 10,346, or 297 more than at the same date in 1917. Stored locomotives in serviceable condition, 654. On November 30, the roads in the Eastern region had in service 748,304 freight cars, or 28,304 more than they owned; percentage of bad order cars, 6.1 per cent.

The general situation at present is normal on all the railroads in the Eastern region. A decrease in traffic is expected, together with a reduction in gross earnings, notwithstanding the increased rates. The regional-director commends the officers and employees of the road for their "tireless efforts and extreme loyalty."

#### Pocahontas Region

The annual saving by economies in the Pocahontas re-

gion, as shown by the results of 1918, amounts to \$2,336,946, as follows:

(a) Unification of terminals and stations.....	\$1,495,603
(b) Elimination of passenger service.....	23,400
(c) Reductions in organizations, as contrasted with the same under corporate control (including abolishment of fast freight lines and closing other off-line offices).....	791,615
(d) Miscellaneous economies, the result of causes other than the above .....	26,328
Total visible savings in money (annually).....	\$2,336,946

The movement of troops and war supplies through Hampton Roads was in great volume and of the utmost importance. The development of the port by the government involved a vast volume of traffic, and much new railroad track had to be laid. There was effective co-operation between the government and the railroads, and in general all demands were satisfactorily met, although there was some delay due to congestion. The extra burden on the railroads was unprecedented, and the different lines had to assist each other alternately. From June 1, to December 20, the coal loaded into vessels at the Hampton Roads piers amounted to 16,500,000 tons, an increase of 1,500,000 tons over the same period of 1917. The three principal roads in the Pocahontas region loaded, between June 1 and December 20, and moved, 727,194 carloads of revenue coal and coke, as compared with 701,410 cars during the same period of 1917. There was a similar increase in ordinary freight, the total being 1,741,793 carloads. One road, being relieved by diversions of general traffic, was enabled to open new coal mines and move 46,000 more cars of coal than in the same period of last year. Eastbound freight has been diverted from the Norfolk & Western to the Virginian to avoid heavy mountain grades east of Roanoke; and it is expected that 8 or more freight trains daily will be sent eastbound between Roanoke and Crewe over the Virginian, with a corresponding movement of 4 westbound empty trains of the Virginian over the Norfolk & Western. Passenger train service was curtailed early in the year, but it has now been put back into normal condition, and the train mileage is slightly in excess of that operated prior to the period of federal control.

The pooling of coal and of coal cars made practicable a uniformly sufficient supply of cars at the coal mines, resulting in increased production. The report describes at considerable length the arrangement for redistribution of the coal traffic to economize mileage and time. Where the Chesapeake & Ohio and the Virginian both served a single mine, one service was discontinued. The locomotives assigned to this region from roads elsewhere made possible the movement of a largely increased volume of business. The tremendous activities at Hampton Roads made it necessary to send freight for the north shore over the Chesapeake & Ohio, and for the south shore over the Norfolk & Western, so as to economize floating equipment. The heavy passenger traffic on the Chesapeake & Ohio incident to the establishment of camps and ammunition plants necessitated assigning to that road many passenger cars and locomotives from other roads.

#### Southwestern Region

Unification of terminals has been accomplished at 168 places, making an annual saving of \$1,434,000; and further economies may yet be made. Enginehouse and car-repair facilities have been consolidated at 54 other places, promoting efficiency. Joint operation of switching facilities, both for interchange and for serving industries, has been introduced at 47 places, at a saving of \$228,000 yearly and releasing numerous locomotives for other service.

Military camps in the Southwestern region were numerous, and passenger traffic was exacting. A number of light traffic passenger trains were taken off, but a reasonable reg-

ular service was maintained. These economies made 57 engines and 203 passenger cars available for military or other traffic, and the total annual estimated saving was \$3,661,333. Some passenger schedules which had been too fast, because of competition, were made slower. Marked economies were effected by sending freight by the most direct routes. In the pay of officers having salaries of \$3,000 or more, about \$1,155,000 was saved, 758 officers doing the work formerly done by 907 officers. Consolidation of offices saved \$2,600,000 in the year. Consolidated ticket offices were established at seven prominent cities, saving \$71,000. About \$500,000 was saved by economy in advertising and timetables.

Shortage of labor was acute, the forces being depleted in October, mainly by influenza, about 7 per cent. Of the 12,000 men off, 900 were skilled mechanics and 150 were trainmen. However, business was kept going fairly well. On October 31, no fewer than 18,000 employees, or 10½ per cent of the entire forces were absent from duty on account of the epidemic.

The supply of freight cars has been maintained to a quite satisfactory degree. Rerouting of lumber in Texas saved 2,660,000 car miles per annum. The sailing day plan is satisfactory to consignees, especially at small places, but some of the larger shippers are yet to be convinced. Shipments of sulphur from points in Louisiana and Texas in the month of October, averaged 135 cars a day. The general condition of locomotives is good; 84 per cent available for service, and most of the balance need only light repairs. The number of freight cars awaiting repairs, 5,800, is 2.8 per cent of the total. Of the passenger train cars, 92 per cent are available for service. The number of new locomotives received in the year was 97, and 26 others have been built but are in use on eastern roads. New cars put into service numbered 51 passenger and 1,225 freight; 800 of the freight cars having been built in the railroads' shops. Traveling firemen and fuel supervisors, by careful attention to their duties, have saved a large quantity of fuel. The stores department has been uniformly organized. Stocks of supplies have been kept in satisfactory condition. Hardwood ties have been difficult to secure, and soft woods, with more tie-plates than formerly, had to be resorted to. The tie situation is now improving. The telegraph departments have been uniformly reorganized.

Tracks, bridges and other structures have been safely and adequately maintained, although, due to shortage of material and labor, some of the branch lines have not been maintained to the full standard which is desirable. The main lines of railroad, however, are in condition equal to that prevailing at close of calendar year 1917. Buildings generally on all of the roads have been maintained to proper standard, and the usual program of repairs and painting has been to a large extent carried out. Practically all of the right-of-way on main lines, and for the most part on branch lines, has been trimmed, and fences and cattle guards maintained to a proper state of efficiency.

Unprecedented drouth prevailed throughout the summer, but the weather since September has been ideal. The harvests have been good, and the amount of wheat sown is probably 20 per cent greater than ever before.

**The New Circumlocution Office**—"Dickens wrote about a place he called 'The Circumlocution Office,'" said a railroad lawyer returning to his hotel in Washington from a visit to the law division of the Railroad Administration, where he had been trying to get action on a compensation contract. "If he were alive today he would change the name of the place he wrote about and call it 'The Expedition office' and write a new story to fit the old title. And I know where he would lay the scene of his new story, but I'd better not say."—Wall St. Journal.



# Doings of the United States Railroad Administration

## Total Receipts Less Than One-Fourth Total Disbursements on the Railroads for Month of January

WASHINGTON, D. C.

**T**HE RAILROAD ADMINISTRATION made advances in the month of January to and for the account of various transportation systems to an aggregate of \$98,269,808, according to a statement issued by Director General Hines. This amount includes both loans and advances on account of compensation to railroad corporations, and advances made to the federal managers to meet operating needs. These payments aggregated \$67,250,696. Payments made during the month on account of the new standardized cars and engines amounted to \$30,071,471. Payments to inland waterways and canals amounted to \$947,641.

The director general received from the operating managements during the month, a total of \$13,996,455, and from the express companies he received in January \$10,327,183, making the total receipts from all transportation lines for the period, \$24,323,638.

As the total disbursements for the month of January, as shown above, were \$98,269,808, the excess of disbursements over receipts for January, 1919, was \$73,946,170.

The aggregate payments and advances by the director general to the railroad corporations and federal managers, including payments on standard equipment ordered for the one year and one month ending January 31, 1919, were \$787,304,567. Of this amount the director general has gotten back various loans made to different railroad companies for amounts aggregating \$57,030,000, leaving the net advances by the director general to January 31, \$730,274,567.

The Railroad Administration also received up to January 31, surplus operating receipts of various railroads amounting to \$237,605,000, and from the express companies a total of \$57,243,599.

The excess of all disbursements to and for account of transportation systems for the period of one year and one month to January 31, 1919, over receipts, including \$57,030,000 received from collection of loans, was therefore \$435,425,968.

The aggregate of loans made by the director general to railroad and other transportation companies, and still outstanding is, \$151,254,767. This is exclusive of the amount advanced for the benefit of various roads on account of standardized equipment. There is also still due to the director general by various roads on account of the amounts advanced to the builders of the standardized cars and engines, the further sum of \$144,585,871.

The total balance remaining in the revolving fund on January 31, plus the sum total of balances remaining on hand with the director general from the surplus receipts turned over by certain roads, aggregates \$61,332,738.

The only railroads from which the United States Railroad Administration has received, in the period of one year and one month to January 31, as much as \$1,000,000 or more in excess of the amounts paid to the railroad properties are:

Duluth, Missabe & Northern.....	\$10,400,000
Atchison, Topeka & Santa Fe.....	9,200,000
Elgin, Joliet & Eastern.....	7,500,000
Atlantic Coast Line--Louisville & Nashville.....	7,360,000
Northern Pacific.....	5,000,000
Bessemer & Lake Erie.....	4,000,000
Duluth & Iron Range.....	3,400,000
Pullman Lines.....	2,800,000
Union Pacific.....	2,200,000
Richmond, Fredericksburg & Potomac.....	1,900,000
El Paso & South Western.....	1,000,000

In a table the statement also shows in separate columns the amounts advanced by the director general to all transportation lines in the period of one year and one month to

January 31, including advances made on account of compensation and loans direct to the corporations, also advances to the federal managers to meet operating needs, but not including amounts received by the corporations before the appointment of the federal managers, on account of compensation, or expended, for construction and additions, from operating receipts.

The table includes 31 roads receiving in each case less than \$100,000, a total of \$1,336,600; advances to inland waterways and canals, \$5,309,127, and payments on account of standardized engines and cars, \$144,585,871.

Of the total amount advanced to various railroad companies since January 1, 1918, the following loans to the companies named have been paid or reimbursed:

New York Central Railroad Co.....	\$13,500,000
Illinois Central Railroad Co.....	10,000,000
Chicago, Milwaukee & St. Paul Ry. Co.....	8,000,000
Chicago, Rock Island & Pacific Ry. Co.....	6,000,000
Baltimore & Ohio Railroad Co.....	5,450,000
Michigan Central Railroad Co.....	4,000,000
Clev., Cin., Chicago & St. Louis Ry. Co.....	3,000,000
Southern Railway Co.....	2,170,000
Chesapeake & Ohio Railway Co.....	2,000,000
St. Louis-San Francisco Railway Co.....	1,710,000
Buffalo, Rochester & Pittsburgh Ry. Co.....	1,200,000

Total .....\$57,030,000

### Overtime Not Considered as Salary

Interpretation No. 9, relating to general order No. 27, gives a decision on the following question: If an employee covered by the provisions of general order No. 27 and subsequent wage orders issued by the director general in connection therewith, whose salary is \$250 or less per month, is required to work overtime, and in a given month his total wage, including overtime, amounts to more than \$250, is it the intention to restrict his earnings per month to \$250?

The decision is that overtime is not to be considered as salary.

### Earnings and Expenses for December

A partial summary of railroad earnings and expenses for December, given out by the Interstate Commerce Commission this week, indicates that the operating deficit of the railroads for 1918 will exceed the estimate of \$196,000,000 made by the Railroad Administration and that the net operating income for the year will probably fall short of \$700,000,000. Reports of 175 roads, operating 214,013 miles, for December show operating revenues of \$414,537,000, operating expenses of \$375,282,000 and operating income, modified by equipment and joint facility rents, of \$23,085,847. This is a decrease for these roads of \$34,604,000 as compared with December, 1917, or nearly 60 per cent, and as the same roads earned practically all of the operating income in December, 1917, the returns for the 19 additional roads are not expected to change the result materially. The net operating income of 180 Class I roads and 15 switching and terminal companies for the 11 months ending November 30 was \$662,407,000. Adding to this the \$23,000,000 for December gives a total of \$685,000,000. The standard return guaranteed by the government amounts to \$890,000,000 for the Class I roads and about \$905,000,000 including the switching and terminal companies. The operating revenues of the 175 roads for December were \$98,000,000, or 31 per cent, greater than for December, 1917, an amount which approximates the advance in rates, so that traffic apparently fell off nearly as badly as in December, 1917. Operating expenses were \$136,000,000 greater, or 57 per cent. This includes a con-

siderable amount of back pay, as instructions were issued to clean up as much as possible of the back pay for 1918 in the December accounts.

#### Requisites for Automatic Train Control Devices

The Railroad Administration Committee on Automatic Control at a meeting in Washington on February 4 adopted the following definition and requisites for the design and construction of automatic train control devices:

Definition: Automatic Train Control: "An installation so arranged that its operation will automatically result in either one or the other or both of the following conditions:

First: The application of the brakes until the train has been brought to a stop.

Second: The application of the brakes when the speed of the train exceeds a prescribed rate and continued until the speed has been reduced to a predetermined rate.

#### REQUISITES FOR THE DESIGN AND CONSTRUCTION OF AUTOMATIC TRAIN CONTROL DEVICES

1. The apparatus so constructed as to operate in connection with a system of fixed block or inter-locking signals, and so inter-connected with the fixed signal system as to perform its intended functions:

- (a) in the event of failure of the engineman to obey the fixed signal indications, and,
- (b) so far as possible, when the fixed signal fails to indicate a condition requiring an application of the brakes.

2. The apparatus so constructed that it will perform its intended function if an essential part fails or is removed; or a break, cross, ground or failure of energy occurs in electric circuits, when used.

3. The apparatus so constructed as to make indications of the fixed signal depend upon the operation of the track element of the train control device.

4. The apparatus so constructed that proper operative relation between those parts along the roadway and those on the train will be assured under all conditions of speed, weather, wear, oscillation and shock.

5. The apparatus so constructed as to prevent the release of the brakes after automatic application, until the train has been brought to a stop, or its speed has been reduced to a predetermined rate or the obstruction or other condition that caused the brake application has been removed.

6. The train apparatus so constructed that, when operated, it will make an application of the brakes sufficient to stop the train or control its speed.

7. The apparatus so constructed as not to interfere with the application of the brakes by the engineman's brake valve or to impair the efficiency of the airbrake.

8. The apparatus so constructed that it may be applied so as to be operative when the engine is running forward or backward.

9. The apparatus so constructed that when two or more engines are coupled together or a pusher is used it can be made operative only on the engine from which the brakes are controlled.

10. The apparatus so constructed that it will operate under all weather conditions which permit train movements.

11. The apparatus so constructed as to conform to established clearances for equipment and structures.

12. The apparatus so constructed and installed that it will not constitute a source of danger to trainmen, other employees, or passengers.

The committee was guided to some extent in its work by a review of a list of requisites for automatic train stops adopted by the American Railway Association in May, 1914, and a list of desirable characteristics for automatic train control systems proposed by the Block Signal and Train Control Board of the Interstate Commerce Commission. G. E. Ellis, who has been signal engineer in the Bureau of Safety of the Interstate Commerce Commission since 1915, and who had previously been in charge of the installation of signals on the Kansas City Terminal, has been appointed

executive secretary of the committee, which has established an office at 607 Southern Railway Building, Washington. The committee will hold its next meeting in Washington on February 14, and intends to press as rapidly as possible its investigation of the various automatic train control devices. It will probably include in its investigation some 40 or 50 devices which were passed on by the Block Signal and Train Control Board of the Interstate Commerce Commission which were not condemned by that board.

#### Homeseekers' Bureau

As was recently noted in these columns the Railroad Administration has established a Homeseekers' Bureau whose function is to furnish information to returning soldiers and war workers generally regarding available land in all parts of the country which can be used for farming, stock-raising, dairying and kindred pursuits. The railroads are preparing to distribute a folder setting forth facts with references to climate, production, markets, schools, churches and other data needed by homeseekers in their quest for available land upon which they propose to settle.

The information thus obtained is being distributed at ticket offices in the demobilization camps, at the booths of the War Camp Community Service and at the various Y. M. C. A. headquarters.

The railroad agricultural agents, as members of the Homeseekers' Bureau, have been organized into state groups and they are now assembling reliable information on soil production, markets, transportation facilities and approximate size of the farms that can be procured. In this work, the Railroad Administration is co-operating with the state agricultural colleges and the state boards of agriculture. Hundreds of inquiries have already come to those in charge of the Homeseekers' Bureau seeking information about farm opportunities, and they are being answered as promptly as they can be assembled.

#### To Keep Tabs on Back Pay

For the purpose of keeping a closer check on the amount of back pay, Director Prouty of the Division of Public Service and Accounting has instructed that, effective with the closing of the accounts for the month of January, federal auditors shall monthly prepare and forward to him a statement on letter sized sheets showing the amount of back pay applicable to prior months' expenses included in operating expenses for the month for which the report is made. In reporting such back pay, there are to be shown the name of the month, or months, in which the amount was properly includible and the amount applicable to each such month. Class 1 Roads are to forward these reports not later than the 26th of the month following that for which the report is made; other lines under federal control are to submit their reports not later than the last day of such month.

#### Credit for Payment of Freight Charges

The Division of Public Service and Accounting has issued P. S. & A. Circular No. 64, as follows: In order that conclusion with respect to the extension of credit for the payment of freight charges may be promptly reached, the following arrangement will immediately become effective at points where more than one railroad is involved: Application for forty-eight-hour credit under bond may be made to agent of any carrier. The agent will secure the approval or disapproval of the agent of each other carrier named in the application, and submit the papers to the federal treasurer of his line. The federal treasurer shall grant the credit or decline to do so in accordance with general instructions and the exercise of his best judgment. He may ask for the advice of the federal treasurers of other carriers, but must himself assume responsibility for the final decision, which will be binding upon all interested lines.



### Piece Work Being Abolished

In accordance with instructions issued by Director General McAdoo just before he left Washington the shop employees on the various roads are voting on the question of the abolition of the piece-work system. As a result of the vote piece work has been discontinued on the Pennsylvania lines, east and west, Philadelphia & Reading, Baltimore & Ohio, Delaware, Lackawanna & Western, Cumberland Valley, Long Island and other roads, and the men on the New York

Central, Norfolk & Western and Chicago, Burlington & Quincy have voted similarly. A large proportion of the men had demanded the discontinuance of piece work and it is said that a strike would have been threatened if Mr. McAdoo had not issued the instructions.

### C. & O. of Indiana Transferred

Effective February 1 the Chesapeake & Ohio Railroad of Indiana was transferred from the Eastern region to the Pocahontas region.

## Wood Preservers Hold Successful Convention

### Annual Meeting Brought Out Much Practical Information About Present Problems of Timber Treatment

THE MATERIAL SITUATION with respect to ties and preservatives occupied a prominent place in the program of the fifteenth annual meeting of the American Wood Preservers' Association, which was held at the Hotel Statler, St. Louis, Mo., January 28 and 29. Because of the present acute shortage of ties the meeting was restricted to two days to enable the members to attend a meeting of tie contractors which was called by the Tie and Timber division of the St. Louis Chamber of Commerce for Thursday and Friday of the same week, at which a permanent national organization of tie producers was effected. The members of each organization were invited to attend the sessions of the other, thus enabling all to become conversant with the problems of both industries. The two organizations were the guests of the Tie and Timber division of the Chamber of Commerce on Wednesday evening, at which Ralph B. Dennis, recently vice consul for the United States in Russia, spoke of the Bolshevik movement and its relation to American industrial problems.

The attendance at the sessions of the American Wood Preservers' Association was the largest in the history of the organization, over 150 railway and timber-treating men being present at the opening meeting, and over 250 registering during the convention. This large attendance was brought out by the practical nature of the program presented and the variety and acuteness of the problems which have arisen during the last year. It was also due, in large measure, to the encouragement which the Railroad Administration extended to railway men desiring to attend. Owing to the absence of President J. B. Card (president Central Creosoting Company, Chicago), who is in active service in the army of occupation in Germany, the meeting was presided over by A. R. Joyce (Joyce-Watkins Company, Chicago), vice-president.

The report of the secretary-treasurer showed a cash balance on hand of \$951.96, the largest for six years. The membership on December 31, 1918, was 282, a decrease of seven during the year. Thirty-two members of the association were reported in military service.

### The Material Situation

The session on Tuesday evening was devoted to the consideration of the present preservative material situation and the outlook for the near future.

Galen Wood, chemist, Port Reading Creosoting Plant, Port Reading, N. J., spoke on sodium fluoride and its possibilities as a preservative. This material has only recently been brought to the attention of American timber treating engineers, although it has been used successfully in Europe for some time. It is about twice as toxic as creosote or zinc chloride. It has been proven non-corrosive after three years'

use in the mines of the Philadelphia & Reading Coal & Iron Company, where it has displaced zinc chloride because of its freedom from electrolysis troubles. A disadvantage of sodium fluoride up to the present time has been the difficulty of determining a method of chemical control and of ascertaining the depth of penetration into the timber, but recent experiments indicate that this problem is being solved. The present cost of sodium fluoride is one and one-half times that of zinc chloride, although its greater toxicity places it about on a parity as far as preservative cost is concerned. Manufacturers are now ready to make the expenditure necessary to increase the output and thereby reduce the unit cost when satisfied that there is a sufficient demand.

The zinc chloride situation was described by J. H. Jordan of the Grasselli Chemical Company, Cleveland, Ohio, who traced the development in the production of this material in this country since its manufacture was first started in 1893. After pointing out the difficulties in securing the necessary materials during the past year he stated that these difficulties have now largely disappeared and that the industry is prepared to meet all demands.

The outlook for an increased supply of domestic creosote was discussed by M. C. McIlreavy, vice-president of the Barrett Manufacturing Company, New York, E. B. Fuls, vice-president of the American Tar Products Company, Chicago, and W. H. Lewis, vice-president of the F. J. Lewis Manufacturing Company, Chicago, who brought out the fact that there is an annual tar production of approximately 500,000,000 gal. available in the United States. Between 50 and 60 per cent of that made last year was burned as fuel, while about 60,000,000 gal. of creosote oil was distilled. While the production of tar has been greatly increased recently, the greater demand for this material for fuel has offset this increase so that there has been no greater amount available for distillation. Even though the fuel demands should decrease and enable the output of creosote to be increased, this is now dependent on the ability to dispose of the pitch for roofing materials, etc. Little hope was held out for an increased supply of creosote or lower prices during the next year.

The possibilities of increasing the importation of creosote from foreign countries was discussed by G. A. Lembcke, of Bernuth, Lembcke & Company, Inc., New York, who stated that although the importation of oil from Europe had been almost entirely arrested during the war, England had raised the ban on the exportation of creosote shortly after the signing of the armistice. The greatest difficulty at the present time is that of ocean transportation. Mr. Lembcke estimated that approximately 25,000,000 gal. of foreign oils will be available for use in the United States during 1919.

The transition from creosote oil to zinc chloride in the treatment of crossties during the last two years was described by Dr. Hermann von Schrenk, consulting timber engineer, St. Louis. This change was made necessary by the shutting off of the importation of oil from Europe. Dr. von Schrenk traced the early development of timber preservation with zinc chloride and its gradual displacement with creosote, beginning about 15 years ago. The conditions of the last three years made it necessary to revert to zinc chloride. He expressed no fear of unsatisfactory results following this transition where proper precautions have been taken in the selection and seasoning of timber for treatment, in the injection of the preservative to insure thorough penetration and in the drying and seasoning of the timber after treatment. He indicated his preference for creosote under most conditions when available but stated that zinc chloride had its proper place as a timber preservative, even under normal conditions, and that the results now being obtained will warrant its continued use on a more extensive scale than prevailed before the war.

#### Service Tests

A report on service tests of ties was presented by J. H. Waterman, superintendent of timber preservation, Chicago, Burlington & Quincy, Galesburg, Ill., and was confined to a description of the results which the Burlington has obtained from 26,000 ties in lots of 1,000 and 10,000 ties in smaller groups in experimental sections on 20 operating divisions in 8 states. Mr. Waterman placed special emphasis on the necessity of large ties free from decay before treatment and properly treated as fundamental to proper service. The test sections were established under general instructions from the vice-president and are inspected annually in September or October by the superintendent of timber preservation, together with the division superintendent, the section foreman and a representative from the office of the engineer maintenance of way. While the local officers have entire authority to determine when a tie shall come out, the cause for this removal is determined by the superintendent of timber preservation. The results which are being obtained are indicated by the following data:

Process	Total placed	Total removed to date	Per cent removed account decay	Per cent removed account other causes
Straight creosote.....	3,264	98	0.7	2.3
Card .....	15,817	1,119	1.6	5.4
Burntreated .....	2,488	297	6.5	5.3
Untreated .....	3,270	2,945	85.7	4.3

#### Development of Uniform Practices

The development of uniform practices in procuring and preserving crossties was described by John Foley, associate manager of the Forest Products section of the United States Railroad Administration. He stated that the preparation of a standard specification for crossties was the first step in attempting to secure uniform quality at equitable prices as prices could not be discussed until uniform standards had been prepared.

Previous to the preparation of these specifications each region was asked to formulate a specification which it could recommend. These specifications were then combined into one composite specification by the central office at Washington. It is necessarily a compromise, leaving out many disputed points. These specifications were prepared to govern purchases rather than maintenance practices. Individual roads have the authority to buy as usable rejects all ties not grading up to No. 1 ties in the specifications. It was assumed in the preparation of the specifications that the railroads knew what their requirements demanded and that it was the problem of the tie manufacturers to meet this demand. The specifications were prepared to cover a wide variety of sizes and of timber while the purchasing com-

mittees in the different regions have further authority to accept other timbers suitable locally.

The Railroad Administration has advocated the treatment of ties and has necessarily limited the commercial plants to the sale of treatment rather than of ties. The handling of the treatment by one road for another has made necessary the standardization of treating methods which has led to the preparation of specifications for treatment by the different processes commonly employed which are now being put into effect. The Forest Products Section has also assumed charge of the distribution of creosote to insure its equitable use and has distributed approximately 12,000,000 gal. to date.

#### Report on Terminology

The committee on Terminology presented a number of definitions of laboratory equipment and other apparatus commonly used about a timber treating plant. It also defined the various types of marine borers that are destructive to untreated timber as follows:

*Xylotrya*.—Wood-boring mollusks which lay their eggs free in the water. These hatch to form small free-swimming bivalve larvae, which attach themselves to timber by a foot and then bore into the wood and form calcareous-lined galleries, averaging  $\frac{3}{8}$  in. in diameter and 3 in. to 6 in. long, although they may reach 1 in. in diameter and over 12 in. long. The entrance to the wood is no larger than a pin-hole, enlarging within the timber to keep pace with the growing animal. The galleries are closely intertwined and very numerous.

*Teredo*.—This genus of wood-destroying mollusks is very similar to *Xylotrya* and cannot readily be distinguished from it by the layman. Its habits and effect on the wood are quite similar.

*Limnoria*.—Wood-boring crustaceans of small size, with mouth parts arranged for gnawing or biting. The bodies are flattened and provided with numerous legs. They bore holes about  $\frac{1}{32}$  in. to  $\frac{1}{16}$  in. in diameter and  $\frac{1}{2}$  in. deep perpendicularly into the surface of the wood, leaving very thin partitions between adjoining galleries. They work in salt water, and are common and destructive.

*Chelura*.—Crustaceans of small size, resembling fleas, which attack wood much the same as *limnoria*, the galleries being about the same size, but running in all directions. They were first called "sea fleas" or "red wood lice." They work in salt water and are much less common than *limnoria*.

*Sphaeroma*.—Also small crustaceans, quite similar to *limnoria*, but somewhat larger, being about  $\frac{1}{8}$  in. to  $\frac{1}{4}$  in. long, and excavating a gallery  $\frac{1}{8}$  in. to  $\frac{3}{16}$  in. in diameter. The body is somewhat rounded instead of flattened as in *limnoria*. They work in either fresh or salt water and are much less common than *limnoria*.

#### Protection Against Marine Borers

L. F. Shackell of the University of Utah, Salt Lake City, presented the results of a detailed study of the efficiency of various grades of oils in protecting timber against the attacks of marine borers. He reviewed numerous experiments to determine the resistance of the borers commonly encountered to the various grades of creosote oils. As a result of his studies he presented the following conclusions:

(1) When a highly poisonous substance (such as quinine or acridine) is dissolved in a high-boiling neutral coal-tar distillate in which it is very soluble, the apparent toxicity of such a solution as measured by the killing time for marine borers will be very much less than that of an equivalent concentration of the poison when dissolved in water, in which it is only very slightly soluble. But this point is of the utmost importance for it means that the high-boiling tar bases, which are very slightly soluble in water, but highly soluble in high-boiling coal-tar creosotes will take an exceedingly long time to leach out of treated wood. Such high boiling bases are probably the most important factors in preventing attacks by borers. (2) The aim in a marine treatment, then, should be to make it in practice a toxicity test with the longest possible killing time (i.e. the oil should show the lowest possible apparent toxicity) consistent with



maintaining the dislike of the borers for the flavor of the treated wood. (3) Compounds boiling up to 210 deg. C., should be eliminated from oils destined for marine treatments. (4) The tar acids (above 210 deg. C.) though highly toxic, by lowering the surface tension of the oil in which they are dissolved, tend to accumulate at the surface of control between oil and water, and, though but slightly soluble in the water, become dissipated in a comparatively short time. A very low maximum, if not complete elimination of tar acids, should be specified. (5) Wood distillation products and preparations using petroleum oils or products therefrom as bases, are entirely unsuitable for marine wood preservation.

#### Other Papers and Reports

The Apparent Relation Between Rainfall and the Durability of Zinc-Treated Ties was the subject of a paper presented by C. H. Teesdale and S. W. Allen of the Forest Products Laboratory, Madison, Wis. The record of 48 test tracks were plotted on a rainfall map of the United States. The test tracks were divided into two groups, (1) those where less than 25 per cent of the ties have been removed after a service of eight years or longer and (2) those where 50 to 100 per cent have been removed. Similar maps were prepared for minimum service periods of ten and twelve years.

A line dividing that portion of the United States receiving more than 40 in. average rainfall from that receiving less than this amount was found to extend through Galveston, St. Louis, Pittsburgh, Albany, and Eastern Maine. The data indicated that in a general way in those areas north of this line crossties treated with zinc chloride may be expected to give over 8 to 10 years' service. The authors ventured the further conclusion that this line of demarkation might safely be moved southward to include all of the region north and west of the Ohio river drainage area, although sufficient data were not available to support this.

Nelson C. Brown, foreign trade commissioner, spoke on the field for the exportation of lumber to the European countries. He emphasized that the native forests in the warring countries have largely been destroyed by the lumbering operations necessary to meet wartime requirements as well as the devastation of the conflict itself. The United States forces alone were operating over 60 portable saw mills in France at the time the armistice was signed, engaged primarily in the manufacture of crossties, while our government had contracted for over 400,000 ties from Spain alone up to last September. Even before the war the countries of Central Europe had derived a large part of their requirements from Russia and this source of supply has now been cut off because of the chaos existing in that country. Based upon 15 months' study of European conditions, Mr. Brown predicted a wide opportunity for the sale of American timber products in Europe.

C. M. Taylor, superintendent of the Port Reading Creosoting Plant, Port Reading, N. J., presented a discussion on the need for a chemist at each treating plant to establish proper control of the treatment. Present day conditions are making it necessary for the plant superintendent to devote so much attention to executive problems incident to the handling of labor, fuel and shipping that he is unable to give sufficient personal attention to the details of the treatment itself. Mr. Taylor stated that a chemist concentrating on the technical supervision of the treatment itself can reduce the waste of preservatives, insure compliance with specifications and conduct the experimental work necessary to meet changing conditions. By studying power plant operations he can also effect economies in the use of fuel, boiler waters, etc.

The work of the car service section of the United States

Railroad Administration in increasing the efficiency of freight car movements was described in a paper prepared by E. H. DeGroot, Jr., assistant manager, Car Service Section, Division of Operation, United States Railroad Administration, and presented by J. A. Somerville, general superintendent, Missouri Pacific, and formerly assistant manager of the Car Service section.

On Tuesday afternoon Joseph W. Hays, combustion engineer, addressed the convention on the subject of fuel economies and pointed out numerous defects in stationary power plants which contribute to the average waste of 25 per cent of the fuel consumed. Mr. Hays analyzed conditions ordinarily leading to these losses and indicated methods for their detection and elimination.

The committee on Plant Operation presented several forms for the recording of data relative to plant performance. It also submitted information concerning the yard arrangement and methods of stacking ties to secure the economical use of storage tracks.

A report on the use of treated timber in car construction was presented by the committee on the purchase and preservation of treatable timber. An abstract of this report and of the discussion on it was published in the *Railway Age* of January 31, page 295.

The committee on Non-Pressure Treatments, submitted as information specifications which have been prepared and are now in use by a number of companies using timbers treated in this manner.

#### Other Business

The election of officers resulted as follows: President, J. B. Card, president, Central Creosoting Company, Chicago; vice-president, A. R. Joyce, Joyce-Watkins Company, Chicago; second vice-president, C. M. Taylor, superintendent, Port Reading Creosoting Company, Port Reading, N. J.; secretary-treasurer, F. J. Angier, superintendent timber preservation, Baltimore & Ohio, Baltimore, Md. Chicago was selected as the location for the next convention of the association.

Resolutions were adopted by the Association expressing its approval of the work of the Forest Products Section of the United States Railroad Administration in distributing creosote and also urging the resumption of work on the investigation of timber preservation problems by the Forest Products Laboratory, Madison, Wis.

The Committee on Publications recommended the discontinuance of Wood Preserving, the quarterly publication of the Association, until such time as the members could give it better editorial support. The Committee on Promotion and Education submitted a report recommending the appointment of a committee to canvass the commercial treating companies, the manufacturers of preservatives, the lumber producers and other concerns interested in the promotion of timber preservative, with the purpose of raising a fund sufficient to undertake promotion and educational work, tending to increase the use of treated timber. The Association concurred in this recommendation and a committee consisting of Carl G. Crawford, general manager, American Creosoting Company, Louisville, Ky.; C. M. Taylor, superintendent, Port Reading Creosoting Plant, Port Reading, N. J.; and E. T. Howson, western editor of the *Railway Age*, Chicago, were appointed.

W. B. Scott, federal manager, reports that 1,416 officers and employees served in the military or naval service of the United States during the war, as follows: Southern Pacific Lines in Texas and Louisiana, 964 men; Gulf Coast Lines, 98; San Antonio & Aransas Pass, 263; San Antonio, Uvalde & Gulf, 41, and Galveston Terminals, 50.

## Train Accidents in December<sup>1</sup>

THE FOLLOWING is a list of the most notable train accidents that occurred on the railways of the United States in the month of December, 1918:

Collisions					
Date	Road	Place	Kind of accident	Kind of train	Killed Inj'd
12.	Pennsylvania	Redkey	xc	P. & F.	0 1
†25.	Lake Erie & W.	Norge, Okla.	rc	F. & P.	5 23
†29.	St. Louis-S. F.	Bainbridge	bc	P. & F.	2 3
30.	A. C. L.	Peoria, Ill.	bc	P. & F.	1 20

Derailments					
Date	Road	Place	Cause of derailment	Kind of train	Killed Inj'd
*3.	N. Y. C.	Frankfort	d. coupl'g	F.	2 1
4.	C. C. C. & St. L.	Farmland	boiler	F.	.. 4
†6.	Atl. Coast L.	Elrod	unx	P.	3 82
9.	Penn.	Emporium	b. rail	P.	0 1
23.	Wabash	Attica	acc. obst.	P.	.. 27
23.	Balt. & Ohio	W. Newton	..	P.	3 ..
23.	West'n Md.	Cumberland	..	F.	1 ..
28.	N. Y., Chi. & St. L.	Edgerton	b. rail	P.	.. 4

The trains in collision at Redkey, Ind., on the 12th, were a westbound passenger of the Pennsylvania Lines, and an eastbound freight of the Lake Erie & Western, the passenger train running into the side of the freight at the crossing of the two roads. One of the two passenger engines was overturned. The engineer of this engine was injured. The collision was due to an error of judgment on the part of the passenger engineer in making the stop for the crossing.

The trains in collision at Norge, Okla., on the 25th, were westbound passenger No. 407 and a following freight, the freight running into the rear of the passenger and crushing three coaches. Five passengers were killed and 23 injured. The passenger train had been brought to a stop because of trouble with freezing pipes. The collision was due to insufficient flagging. The negligent brakeman, having been found guilty by a coroner's jury, was placed under arrest in Grady County.

The trains in collision near Bainbridge, Ga., on the 29th, were eastbound passenger No. 182, and a westbound freight. One passenger and the engineer of the passenger train were killed, and three trainmen were injured.

The trains in the collision at Peoria, Ill., on the evening of the 30th, were a westbound passenger of the Lake Erie & Western, and an eastbound freight of the Toledo, Peoria & Western. Both locomotives were badly damaged. The engineer of the passenger train was killed and eleven passengers and three employees were injured. The collision appears to have been due to negligence on the part of the passenger train, at the meeting point, in not making sure that the freight had cleared the main track.

The derailment near Frankfort, N. Y., on the evening of the third, involved two freight trains, one eastbound and one westbound. A car in the eastbound train was derailed by the failure of a drawbar and fouled the westbound track. The westbound freight was thrown off the rails by this obstruction, and the engine fell into the Mohawk River. The engineer and fireman were killed, and one other trainman was injured. Fourteen loaded cars were wrecked and were destroyed by fire.

The train involved in the accident near Farmland, Ind., on the night of the 4th, was eastbound freight No. 92, second section. The locomotive, a new one, United States Standard, was wrecked by the explosion of its boiler and a number of cars were thrown off the track. The fireman and one brakeman were seriously scalded, and the engineer and the conductor less severely injured.

The train derailed near Elrod, N. C., on the night of the

6th, was a southbound passenger. Three passengers were killed and 73 passengers, 3 employees and six other persons were injured, of whom 67 were only slightly injured. Cause of derailment undetermined.

The train derailed near Emporium, Pa., on the ninth, was a northbound express. The train, drawn by two locomotives, was running at full speed, and all of the passenger cars (all of the train behind the baggage cars, except one sleeping car), were thrown off the track by a broken rail. Only one person—a passenger—was reported seriously injured.

The train derailed near Attica, Ind., on the 23rd, was westbound passenger No. 53. The locomotive fell down a bank and one coach was wrecked. Twenty-four passengers and three trainmen were injured. The engine was thrown off the track by some obstruction, believed to be a brake rod.

The train derailed near West Newton, Pa., on the 23rd, was eastbound passenger No. 66. The locomotive and first three cars were overturned; the engineman and two express messengers were killed and the fireman and four other persons were injured.

The train derailed near Cumberland, Md., on the 23rd, was an eastbound freight. Twelve cars were wrecked and the line blocked ten hours. One trainman was killed.

The train derailed near Edgerton, Ind., on the 28th, was a westbound special passenger carrying troops. Four passengers were injured. The cause was a broken rail.

Canada.—In a train of the Canadian Pacific at Bonheur, Ont., on the 17th, 14 passengers were killed by a fire which broke out in a tourist sleeping car and spread so rapidly that it was impossible for the passengers to escape, although the train was not in motion.

On the Canadian Government Railway, December 31, near Edmundston, N. B., a westbound special train, loaded with troops, ran off the track and one car fell down a bank and lodged in a lake. Six or more soldiers were killed and a large number injured. After the derailment a heavy snowstorm arose, making rescue work very difficult.

Electric Car Accidents.—Of the electric car accidents reported in the United States in the month of December, only two appear to have resulted fatally. At Norristown, Pa., on the 13th, a trolley car was struck by a locomotive at a crossing and two persons were killed and 11 injured. It is said that the trolley pole jumped off the wire when the street car was on the railroad tracks. At 142nd street, New York City, on the 8th, a two-car train of the Interborough Rapid Transit Company was derailed and ran against the iron pillars at the side of the track. The motorman was killed and four other employees were injured. Apparently the train contained few or no passengers.



Arrival of the German Delegates to the Peace Conference

<sup>1</sup>Abbreviations and marks used in Accident List:  
rc, Rear collision—bc, Butting collision—xc, Other collisions—b, Broken—d, Defective—unf, Unforeseen obstruction—unx, Unexplained—derail, Open derailing switch—ms, Misplaced switch—acc, obst., Accidental obstruction—malice, Malicious obstruction of track, etc.—boiler, Explosion of boiler on road—fire, Cars burned while running—P. or Pass., Passenger train—F. or Ft., Freight train (including empty engines, work trains, etc.)—Asterisk, Wreck wholly or partly destroyed by fire—Dagger, One or more passengers killed.



## Lining and Floor Racks for Cars Handling Perishable Freight

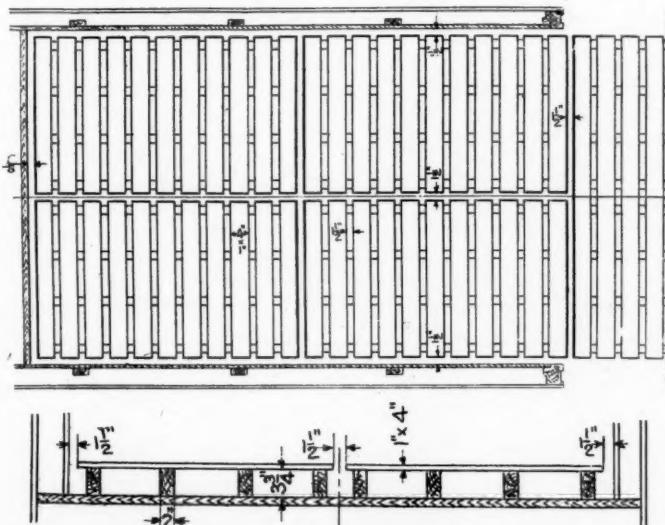
THE CAR SERVICE SECTION of the Railroad Administration issued Circular CS-43 (revised), dated January 30, covering the use of refrigerator and box cars to be used in the transportation of perishable freight.

**Refrigerator Cars.**—(1) Railroads will supply refrigerator cars for shipment of fruits and vegetables to the extent of their ability. A certain percentage of this class of cars belonging to the various railroads is already equipped with false floors or floor racks. It is contemplated eventually to equip in this manner all such cars owned by roads under federal control, and also cars of the following refrigerator lines: Pacific Fruit Express Company, Santa Fe Refrigerator Despatch, American Refrigerator Transit Company and the Frisco Refrigerator Line.

2. It will not be practicable for the railroads to equip a sufficient number of cars to fully meet the requirements of the present season. Therefore if refrigerator cars owned by federal-controlled roads, or cars belonging to any of the above-named refrigerator lines, not equipped with floor racks, are offered for loading fruit and vegetables, shippers, if they so desire, will be privileged to construct and place in cars suitable racks of standard type, in accordance with specifications shown on accompanying print. Racks when so placed will become a permanent part of the car.

3. Railroads will reimburse shippers for the value of floor racks placed as above described at the rate of fifty cents per linear foot of rack. This reimbursement will be made by the road on which load is first placed in car following installation of floor racks.

4. Any lining desired by shippers in refrigerators in



Arrangement of Floor Racks for Cars Handling Perishable Freight

addition to floor racks must be placed by them at their own expense, and in such manner as not to damage the car or insulation.

**Box Cars.**—(5) When railroads are unable to meet the demand for refrigerator cars for above-named shipments, if shippers elect to make use of box cars, and if in their opinion such cars require lining, they (the shippers) will be given the privilege of equipping the cars with such lining entirely at their own expense.

6. In the interest of promoting shipments and conserving food supply, it is suggested that the lining of box cars, when done, conform to the following standard furnished by the Bureau of Markets, United States Department of Agriculture, which, it is believed, will give the best results:

"False floors, side and end walls shall be installed providing an unobstructed space for air circulation down between the car and walls and false end walls, and from there under the false floors to the doorways. This ventilating space must be kept clear of hay, straw, manure, shavings, and everything except the necessary false-floor supports. There shall be a space between the car side walls and the false side walls of not less than four inches at the top and six inches at the bottom.

"Each doorway shall be tightly boarded not less than 24 in. from the floor upward, the boards being nailed to the inside of the door frame to keep out cold winds."

7. For the same reason it is further requested that shippers make it a practice to use box cars for the shorter hauls, reserving refrigerator cars for loading to the more distant points. Railroads will supply refrigerator cars preferentially as compared with box cars, for the longer runs.

8. Box cars that may be lined by shippers will be furnished with a board on either side, of uniform dimensions (24 in. by 30 in.), with lettering of suitable size, reading as shown in the illustration.

<b>RETURN TO</b>	
..... (Insert name of shipper.) <b>AT</b>	
..... (Name of station.)	
..... <b>RAILROAD</b> (Name.)	
<b>UNITED STATES RAILROAD ADMINISTRATION</b>	

Instruction Card for Return of Cars

9. These boards will be furnished by the railroads. Lined box cars so boarded will be returned free, with lining, to point of origin of load, and should be waybilled to such point, consigned to party or firm whose name the board bears. They may be loaded all or a part of the way on return trip with any suitable freight. They must not be loaded out of direct line, and care should be exercised to avoid damage to lining in loading or unloading.

10. It must be understood that cars thus lined and boarded are subject to demurrage, either while awaiting loading or unloading.

11. The privilege of equipping box cars as above will extend from November 15, 1918, to April 1, 1919. In the event of failure to return lining to shippers within three months from the last-named date, roads on which it was originally placed in cars will refund to party furnishing same the sum of twenty-five dollars per car in full payment for the value of the lining, but only when installed in conformity with the specifications named in paragraph 6. In the case of box cars the term "lining" will be understood as including false floor as well as lining of side and end walls.

12. Roads on which cars are equipped should keep an accurate account, showing date, number and initial of car and name of shipper to avoid any misunderstanding in making settlement in case of loss.

13. After April 1, shippers will be required to promptly remove from cars any lining which belongs to them. Failing to remove such equipment, the work of removal will be performed by the railroads, but the latter will not be responsible to owners for the material or its value after removal.

14. Provisions herein contained which relate to reimbursements to be made to shippers become effective coincidently with the effective date of tariff provisions of the various railroads authorizing such reimbursement.

## General News Department

A second collision, resulting in fatalities to American soldiers, is reported from France. At Montieramey, near Troyes, on February 3, a troop train collided with standing locomotives. Eight United States soldiers were killed and 30 were injured.

A collision, in Mexico, on Tuesday, January 28, is reported as having resulted in the death of 25 persons, including five women and three children. It occurred at Laguna, 160 miles from the Texas border, a passenger train running into the rear of a freight.

Scrip books, containing \$90 worth of coupons, are to be sold at \$97.20, including war tax, at all Railroad Administration ticket offices in the larger cities. These books will be good on all government railroads, for passage and for extra baggage, the same as the books sold for \$30 and \$15.

The Louisiana & Northwest Railroad, 121 miles long, extending from Natchitoches, La., northward to McNeill, Ark., and the only route to Homer, La., the center of new oil fields, is to be sold. This is in accordance with an order issued in the federal court at Shreveport, La., by Judge George W. Jack.

Engineers, in Chicago, representing railroad corporations, held a meeting on January 28, at the club rooms of the Western Society of Engineers to formulate plans for a series of meetings at which they will discuss problems which have developed in their relations with the Railroad Administration. The present program includes a meeting on the first Thursday of each month, also an informal luncheon once a week. An executive committee was elected with G. W. Hand, chief engineer of the Chicago & North Western, as permanent chairman, and D. J. Brumley, chief engineer of the Illinois Central, and A. W. Newton, chief engineer of the Chicago, Burlington & Quincy, as members.

Anchorage, Alaska, through its chamber of commerce, asks Congress to appropriate funds to be expended by the Alaskan Engineering Commission for the construction of wagon roads as feeders for the Government Railroad. It is pointed out that there are more than 300 homesteads in the territory through which the railroad passes and on which large crops of potatoes, cabbages, oats, barley and other foodstuffs have been raised during the last two years, but which crops had no means of getting to the railroad and to market. It is declared that sufficient potatoes were raised in the valley of the Matanuska river alone to supply all of the towns along the Alaskan Coast if roads and ships had been available.

The Daylight Saving Law is not liked by the farmers—or at least not by a large majority of those, in various parts of the country, who have been questioned by the Literary Digest. In the summer the farmer has to begin work at daylight whatever may be the time by the clock, and the principal difference in the situation under the new law, in most cases, seems to be that hired men, beginning their work the same as before, wish to lay down their tools, at night, as soon as the whistle blows in neighboring factories. If this factory signal comes an hour earlier than under normal conditions, it tends to cheat the farmer out of an hour's work. Some farm work cannot be profitably begun in the morning until after the dew has dried off; and by long custom the farmers' habits have been adjusted to the situation as guided by the sun; and the false clock is a hindrance rather than a help.

The directors of the Canadian National Railways expect to ask the government for about sixty million dollars for betterments this year including roadway, cars and engines and considerable construction work in the west. The proposed extensions are branch lines, most of which have been graded but not finished. The Great Waterways Railway, of Alberta, which is now a provincial undertaking, about half built, is

in the market. It is understood that the government of Alberta would be glad if the federal authorities could take over the line and nationalize it. The government of British Columbia, likewise, has a railway to sell and few bidders. It is the Pacific Great Eastern, heavily financed by the province. The government of New Brunswick has the St. John Valley Railway. This is now operated as a part of the national system, but the provincial government is said to be quite willing that in place of operation the Dominion government should buy out the line entirely.

### New Railroad Y. M. C. A. Buildings

Two new Railroad Y. M. C. A. buildings were opened during January. One of these was at Maybrook, N. Y., on the New York, New Haven & Hartford; the other one was at Coxtown, Pa., on the Lehigh Valley, this being the first Railroad Y. M. C. A. building on that line. Special exercises were also held at Elsdon, Illinois, on the Grand Trunk, in connection with the completion of the second addition to that building, made necessary by the constantly increasing growth of the association.

### Proposed Salaries for Engineers

The American Association of Engineers has submitted to the United States Railroad Administration a schedule of proposed salaries for technical engineers employed by the roads. This schedule is a result of the work of a railroad committee of this association appointed to study this problem when it became evident that the complications involved were delaying its definite solution by the Railroad Administration. In the case of chief engineers, assistant chief engineers, chief draftsman, superintendents of motive power and assistant general superintendents of motive power the schedule makes no specific recommendation; the salaries should be "commensurate with the duties performed." With each position this list contains a note indicating the duties, responsibilities and scope of authority of the position.

Position	Railroads having over 5,000 miles of track	Railroads having less than 5,000 miles of track
District engineer	\$425	\$375
Assistant district engineer	350	300
Division engineer	375	350
Resident engineer	275	275
Assistant engineer	275	275
Engineer of bridges	400	350
Valuation engineer	400	350
Assistant valuation engineer	350	275
Mechanical engineer	400	325
Electrical engineer	325	275
Assistant electrical engineer	275	250
Signal engineer	400	350
Assistant signal engineer	300	275
	Permanent work, one year or more	Temporary work, less than one year
Instrumentman	200	225
Rodman	125	150
Tapeman	100	120
Designer	250	275
Draftsman	160	200
Junior draftsman	115	160
Tracer	110	130

### American Electric Railway Association

The first mid-year meeting and dinner of the association since the entry of the United States into the war will be held in New York City, March 14. The meeting will be held in the morning and afternoon, in the Engineering Societies building, 29 West 39th street. The dinner will be held in the evening in the grand ball room of the Waldorf-Astoria. The program of the meeting will include: (1) a report from the Committee on Readjustment; (2) "The state of the Industry (a symposium), (a) Modern Regulatory Plans and



Theories—paper by an electric railway executive; (b) Capital and Electric Railways—paper by a banker; (c) From the Regulator's Viewpoint—addresses by three public service commissioners. The program for the dinner is yet to be announced.

### Some Small Percentages

Freight traffic in the United States in the year 1918, as measured by net ton miles, increased 1.8 per cent over 1917, according to the monthly report of the Operating Statistics Section of the Railroad Administration. This freight was handled with 2.5 per cent less train miles and 2.1 per cent less car miles. There was an increase of 2.9 per cent in the average number of freight cars on line. Net ton miles per car per day increased 0.1 per cent.

### Five Business Cars for Sale by Interstate Commission

The Interstate Commerce Commission has for sale five business cars with their contents. These cars were purchased from the Pullman Company in 1914 and 1915, and were standard Pullman cars of wooden construction, overhauled and refitted to serve the purpose of office or business cars for use of field parties in the Bureau of Valuation. Sealed proposals for the purchase of these cars will be received at the office of the chief clerk and purchasing agent of the Interstate Commerce Commission, Washington, and there opened at 10 a. m. on Tuesday, February 25, 1919.

### Thieves Punished

Dishonest express messengers, to the number of 11, were sentenced in court at Boston on January 30 to imprisonment from three months to eight months, according to the magnitude of their crimes. These men had been messengers for the American Railway Express between New York and Boston, on trains 48 and 49, and some of them had been stealing merchandise for several months. One man was charged with stealing \$1,216 worth of merchandise, and others smaller amounts; but the attorney for the prosecution said that a total of \$53,000 had been paid out in claims for losses which, it is believed, were due to the pilfering of these men.

At Elmira, N. Y., on January 18, in the United States Court, a conductor and a baggage master were sentenced to the Maryland State Penitentiary for six years and five years, respectively, for stealing goods from a freight car of the Lehigh Valley.

Six railroad employees, including two railroad police officers, one conductor and three brakemen, were found guilty of stealing freight in a trial before the Court of General Sessions at Wilmington, Del., on January 31. The men were charged with conspiracy, and the stealing was carried on in the early part of 1919. Goods in great variety, stolen from freight cars, were found in the culprits' homes.

### Public Sentiment on the Railroad Question

The New York Evening Post, which has investigated conditions in many cities, prints, this week, letters from its correspondent, dated Seattle, Pittsburgh and Cincinnati, all reporting a strong sentiment in business circles unfavorable to government control or operation of railroads. At Cincinnati, labor leaders who were consulted favored Mr. McAdoo's proposal to extend government operation for five years.

The Merchants' Association of New York city, adopting the report of a committee, calls for the restoration of railroads, telegraphs and telephones to private ownership, but not until such time as Congress has made suitable investigation and has passed such laws as will permit and promote maximum utilization of facilities and maximum efficiency in service; and provide for a fair return upon the capital employed.

The lower House of the Iowa Legislature has adopted resolutions of a similar tenor. The discussion on the resolution brought out severe criticism of the management by the government of the railroads and the telegraph and telephone systems.

The American Fruit & Vegetable Shippers' Association, in a four-day convention at Chicago, has adopted resolutions favoring the return of the railroads to private ownership and the adoption of laws to protect the interests of the carriers and the shippers.

## Traffic News

All of the observation cars on passenger trains of lines west of Chicago, which were taken off during the war, have now been restored.

Total coal loading for the week ending January 18 amounted to 206,835 cars, as compared with 185,883 for the corresponding week of 1918. Loading for the following week is estimated at 194,378 cars, as compared with 215,329 in 1918.

The Akron Traffic Association held its annual meeting on January 20, and Alvin Hill, traffic manager of the Robinson Clay Product Company, was elected president. The secretary is H. L. Sovacool. The annual dinner was held in the B. F. Goodrich Company's banquet hall.

The Oklahoma Corporation Commission, in a decision rendered on January 30, has ordered railroads to refund one cent a mile in all cases where a cash fare of four cents a mile is collected. The roads have been collecting four cents a mile whenever passengers were not provided with tickets.

The Rate Men's Club, an organization of rate men on railroads in this country and Canada, held its annual meeting and banquet at the City Club, Chicago, on Wednesday evening, February 5. S. J. Duncan-Clark, war correspondent of the Chicago Evening Post, was the speaker of the evening.

Coal loading for the week ending January 11 was 213,715 cars, as compared with 225,642 for the corresponding week of 1918, according to a Railroad Administration report. Grain loading for the week ending January 18 was 29,613 cars, as compared with 16,911 for the corresponding week of 1918. The total for the three weeks ending January 18 was 75,086, as compared with 57,070.

A suit questioning the right of the Hocking Valley to charge three cents a mile in Ohio in violation of the state law fixing passenger rates at two cents was instituted in the Franklin county court at Columbus, Ohio, by the prosecuting attorney of the state. The petition asks that trustees be appointed to take charge of and distribute the money which has been paid to the railroad in excess of two cents a mile.

Recent press reports state that the Agricultural Committee of the Chamber of Commerce at Spokane, Wash., has appointed a special committee to investigate order No. 57 of the Railroad Administration, which deals with claims for loss on grain shipments. A member is quoted as saying "that the order is meeting with a general protest from shippers and traffic organizations because it prevents shippers from substantiating claims for grain losses."

The American Railway Express Company is appealing to its employees and, through the newspapers, to the public, for aid in raising the standards of packing, wrapping and marking goods, so as to check the waste that results from lost and damaged shipments. "Four minute" speeches are to be delivered by local express officers, and "better-service campaign committees" will be formed in the express organizations in every city. Meetings of the different classes of express employees are to be held on every Tuesday during the "drive."

The North and West Committee and the South Committee of Railroad Agricultural Agents appointed by the Agricultural Section of the Railroad Administration have subdivided their respective territories and appointed sub-committees in each state. These sub-committees have completed the assembling of information on soil production, market transportation facilities and the approximate size of available farms in their territories, and this information is now being distributed to returning soldiers and home-seekers. Folders setting forth facts with reference to climate, production, markets, schools and churches in 19 states have been prepared, and will be distributed at ticket offices, demobilization

camps and at the booths of the war camp community service; also at Y. M. C. A. headquarters.

The Special Committee on Relations, of the American Railway Association, and the Committee on Car Demurrage and Storage, of the National Industrial Traffic League, held a meeting in New York on February 5 to further consider a proposed recodification of the national car demurrage rules. The National Industrial Traffic League for two years has complained that in their present form the rules cause confusion and loss of time because of the necessity of referring to the numerous qualifications and exceptions which modify their application.

#### Need of Relief from Drought

Representatives of 17 counties in southwestern Kansas met at Dodge City, Kan., on January 22 to petition the director general of railways to grant to that territory preferential freight rates, such as have been granted the drought-stricken areas of Texas, Oklahoma and Montana, and to issue orders expediting the shipment of foodstuffs into that territory. The petition states that grain and feed crops have been practically a total failure during the past two years because of the lack of rain and that the commercial credit of the farmers and stockmen is practically exhausted. The petition also states that the present feed supply is sufficient for about two weeks only, making necessary the immediate shipment to that section of large quantities of feed.

#### Rates on Sand and Gravel

The hearing of the Central District Freight Traffic Committee at Chicago on a proposed mileage scale of rates for sand, gravel, stone and slag in Central Freight Association territory was concluded January 30. Considerable testimony was offered by individual shippers purporting to show that the application of the mileage scale will mean an increase in rates which will seriously impede construction work, and it was urged further that the present rates, which were increased last summer under General Order No. 28, be reduced. Resolutions passed by the Ohio and Indiana legislatures opposing the new scale were also read. H. C. Barlow, traffic manager of the Chicago Association of Commerce, opposed the principle of the mileage scale as applied to sand and gravel, believing that zone rates such as exist in northern Illinois and southern Wisconsin are better adapted to those commodities. It was pointed out repeatedly in the hearing that a prompt settlement of sand and gravel rates is essential to enable contractors to make intelligent bids on work contemplated for the coming spring and summer.

#### Chicago Commutation Fares Not Increased

The proposed increase in commutation fares to and from Chicago which was to become effective February 10, has been indefinitely postponed by the Railroad Administration. The advance was authorized to enable the Aurora, Elgin & Chicago, an electric line, to take advantage of authority recently granted to charge two cents a mile for its service. That road has been in serious financial difficulty and the Public Utilities Commission of Illinois recognized its need for additional revenues.

According to a statement given out by the railroads the Utilities Commission was consulted before any action was taken regarding the proposed advance for the steam lines, and went on record as preferring action by the Railroad Administration in the matter. In spite of this, however, the attorney general of Illinois filed a petition in the federal court at Chicago for an injunction to restrain the railroads from making the increase. Various suburban organizations have been assisting him in this fight. In view of the postponement of the advance, the attorneys for the Railroad Administration have asked the attorney general to agree to a continuance of any action on his part pending a full review of the matter by an appropriate tribunal. The Chicago & North Western, the Chicago, Burlington & Quincy and the Illinois Central, which are the largest suburban carriers, have spent 40 years in building up business on their lines. Their activities have not been confined to the operation of trains, but have included the development of many of the suburban communities. The proposed advance in rates might

drive considerable numbers of suburban passengers to competing electric roads.

The petition for an injunction to restrain the director general from advancing the fares was not granted. When the case came up before Judge Landis, in the Federal Court at Chicago, the attorney for the Illinois Public Utilities Commission requested indefinite postponement, and this request was granted.

#### Maximum Anthracite Prices and Other Restrictions Suspended

Maximum prices on anthracite coal, together with all other coal and coke regulations except three, have been suspended by the Fuel Administration. The only restrictions not suspended, as to coke and all coal, are: Those requiring that contracts be made subject to maximum prices if reinstated, subject to cancellation by the Fuel Administration and subject to requisition or diversion of coal by the Fuel Administration. Those prohibiting reconsignments of coal. Those requiring shipments of coal to tidewater to go through the Tidewater Coal Exchange. The order includes the suspension of price and zone regulations on coke and bituminous coal which went into effect February 1. The administration's control of the oil industry already has been mostly suspended, so that the Fuel Administration's controls are now relaxed to the present limit of safety.

#### Western Roads Resume Resort Advertising

A comprehensive advertising campaign to stimulate tourist travel in the West was launched at a meeting of advertising agents of federal-controlled lines at Chicago on February 4. The plans prepared at this meeting will be put into effect under the direction of the Western Lines Advertising Committee in collaboration with the Bureau of Service, National Parks and Monuments and R. S. Yard, chief of the Educational Division of the National Park Service, United States Department of the Interior. The advertising committee which has jurisdiction in the territory served by the Western Passenger Traffic Committee is composed of W. H. Simpson (chairman), assistant general passenger agent of the Atchison, Topeka & Santa Fe; C. R. Custer, advertising agent of the Chicago & North Western, and W. D. Braddock, advertising agent of the Rock Island. This supervisory body will be assisted by 18 subordinate committees made up of railroad advertising representatives who are familiar with the parks and resorts.

This is the first unified effort of railroads in this country to increase passenger travel. The work undertaken falls under two general heads, the attractions of western summer tourist regions and those of the national parks and monuments. Five separate publications will be issued to cover the first class of resorts, and will be entitled "Colorado and Utah Rockies," "California for the Tourist," "Pacific Northwest and Alaska," "Wisconsin, Minnesota and Iowa Lakes," "Arizona and New Mexico Rockies." Each booklet will be profusely illustrated.

The national parks and monument series will consist of 13 booklets, namely: "Yellowstone National Park," "Glacier National Park," "Yosemite National Park," "Grand Canyon of the Colorado in Arizona," "Rocky Mountain National Park," "Mount Rainier National Park," "Hot Springs National Park," "Crater Lake National Park," "Mesa Verde National Park," "Sequoia National Park," "Hawaii National Park," "Zion Canyon National Monument" and "Petrified Forest National Monument." The Bureau of Service of National Parks and Monuments will assist the railroad committees in preparing this literature.

Unlike the folders published heretofore by individual lines, these booklets will make no mention of the railroads serving the various resorts and parks except on the maps. As the pamphlets are intended primarily to serve the needs of the tourist they will include no agricultural or industrial data or detailed population statistics.

The Western Passenger Traffic Committee is preparing tourist rates to these points which will be approximately on the same basis as those of last year. It is believed that the long distance rates, such as from Chicago to San Francisco, will be about 1 1/3 times the regular one way fare, whereas the rate to nearby resorts will be in the neighborhood of 90 per cent of the regular round-trip charge.



## Foreign Railway News

**New Zealand**, in the first nine months of 1918 imported "railway and tramway plant" to the value of \$215,017, as compared with \$136,277 in the same period of 1917, and \$404,007 in the first nine months of 1916.

**The Peruvian Congress** has authorized the construction of a railway from Paita to the Marañon River, with a couple of branch lines. As a guarantee to the capital invested there is to be a subsidy of 7 per cent per annum for 39 years, the maximum amount of capital being fixed at £6,000,000.

**The Spanish Government**, in a royal decree, dated December 26, has authorized the railways of the country, all of which are privately owned, to advance their tariffs 15 per cent. The increase is allowed under a lengthy set of conditions, and is intended to cover increased costs of fuel, etc., but primarily increases in wages.

**Railways in Siam** have apparently suffered severely during the war, because of their inability to procure steel equipment necessary to maintain their efficiency. Advices are that they are in the market for iron framework, wheels and other parts. Eight Siamese students connected with the State Railways are about to visit the United States to study railway methods here.

**The government of Holland** is expected to place orders in the United States in the next few months for some 30,000 to 40,000 tons of steel for the Dutch East Indies. Railway supplies are greatly needed in the Dutch East Indies, the chief demand being for rails, bars, shapes and reinforcing products. Holland's own needs, which are great, will probably be supplied almost entirely from European sources.

**Two Chilean engineers** are expected to arrive in this country in about three weeks to continue here their investigations concerning the electrification of the first section of the line of the Chilean State Railways between Valparaiso and Santiago. The government plans to submit the project to an international competition to secure the best system, following somewhat the same plan as was used in connection with the new shops at San Bernardo, near Santiago.

**The first Paris-Brussels train** for 50 months started at 7 o'clock on the evening of December 27. There were 1,014 passengers, mostly officers and employees on the Belgian railways going to take up their pre-war jobs. The journey was scheduled for 27 hours, and the train traveled by way of Calais, Bruges and Ghent. The first train from Paris to Brussels by the more direct route through Maubeuge arrived at Brussels February 4. It is reported that direct train service is expected to be opened in about three weeks.

"The railways of this country are at present much in the public mind," says the London Daily News. "Traveling during the war has been expensive and uncomfortable. It is expensive and uncomfortable still, and no indication has been given as to when passenger fares are to be reduced or satisfactory services instituted or the normal conveniences of travel restored. But these, closely though they touch the welfare of the individual passenger, are no part of the vital railway problem. That problem consists in the attitude and intentions of the state towards the railways."

**The great scarcity of coal in Italy** has made it necessary to use wood and lignites for fuel in locomotives. The boilers and fire boxes of the locomotives have had to be changed to suit the new fuel, and employees re-educated to a considerable extent. The use of substitutes for coal as fuel has been urged on all manufacturers, and prizes have been offered for noteworthy economies. In addition to that, two companies, with an initial capital of \$1,200,000 each, have been formed for the development of lignite or brown-coal mines in Italy. One will operate mines in northern, the other in southern Italy.

**The Federated Malay States legislative council** has ap-

proved the construction by the government of a causeway, carrying two lines of railway and a roadway 20 feet wide, across the Johore Straits. The Admiralty has given its consent to the scheme. It has also been decided to build a dock on the Johore side of the straits capable of taking the largest craft using those waters. These decisions are of first-class importance because they mean the linking up of Singapore with the mainland of the Malay Peninsula, greatly facilitating transport to and from the Malay States through Singapore.

**Three officers of the Victorian railway department** have left Melbourne on a visit to America and Canada "for the purpose mainly of making inquiries and securing all the information necessary to enable an electric furnace to be installed at the Newport workshops for the production of high-grade steel castings." A statement to this effect was made by the Premier, who said that the proposed furnace will enable high-grade steel castings to be manufactured at Newport at less than one-half their present cost to the department, and render practicable the use of steel castings in substitution for iron forgings. The installation of the furnace would necessitate the erection of a new foundry to form part of the general scheme of rearrangement of Newport workshops, which was proposed prior to the outbreak of the war.

**The exports of railway material from the United Kingdom** for the eleven months ending November 30, according to the Board of Trade returns, were as follows, the corresponding figures for 1917 being given in parenthesis: Locomotives, \$5,225,125 (\$7,700,125); rails, \$2,351,965 (\$3,392,505); carriages, \$2,734,025 (\$825,085); wagons, \$1,521,530 (\$2,036,800); wheels and axles, \$1,639,220 (\$695,945); tires and axles, \$2,802,000 (\$2,561,440); chairs and metal sleepers, \$696,620 (\$346,450); miscellaneous permanent way material, \$2,652,395 (\$2,312,610); total permanent way material, \$5,762,195 (\$6,086,535). The weight of the rails exported was 25,475 tons (38,390 tons), and of the chairs and sleepers, 8,711 tons (5,396 tons).

### Greek Railway Development

The Athens newspaper Hestia stated recently that negotiations are being conducted in Paris by an important group of French capitalists with a view to the construction of new railway lines in Greece. Representatives of those interested will shortly go to Greece to undertake preliminary investigations. The first line to engage their attention will be that from Drama to Kavalla.

### Troops Live in Box Cars

When operating through the thinly populated forest and tundra region along the railway leading from Archangel to Vologda, the American troops fighting the Bolsheviks on the north Russian front are living, when free from trench and blockhouse duty, in tiny Russian freight cars, says the Associated Press. In this they are imitating the Russian soldiers, who, since the revolution, have commandeered freight cars wherever they found them and remodelled them for dwellings.

When the box cars are fitted up with stoves they are known as "topluchkas." They are not particularly warm in zero weather, but a welcome change from the cold trenches in the snow.

### Agricultural Light Railways in the United Kingdom

A first step seems to have been taken in the government plans outlined by the British Premier, and referred to freely during the election campaign, for the construction of light railways serving the agricultural districts. Proposals have, it is reported, been drawn up by the Ministry of Reconstruction and approved by Dr. Addison, indicating some of the localities where such railways are needed. Legislative sanction will, of course, be required, but it is understood that the cost is to be borne partly by the local county authority and partly by the government, the lines being leased to operating companies with guarantee as to wages and fares. The operation of the Belgian system of light railways is to be

taken as a model. So far as new construction is concerned a large quantity of material has been released from transport requirements on the French and Belgian fronts, and should be available within a short period, materially reducing the cost. The lines, it is stated, will be run by the side of country roads, linking up the neighboring towns.

### Train Ferries for the Irish Channel

Some important developments in the traffic between Ireland, England, South Wales and the French ports may be expected to take place during the current year, in which use will be made of train ferries for the sea passage. Last November a syndicate was formed under the title of the Irish Packing Company, Limited, for the purpose of developing the Irish dead meat export trade on lines which have been so successful in the United States, Australia, New Zealand and Argentina. The plans of the company include in part a service from Dublin and Waterford by train ferries in order to save the double transshipment of the meat and to facilitate its passage to the English market. Berths for the accommodation of train ferries are to be provided at the Alexandra Basin, Dublin, and at Fleetwood, by arrangement with the Lancashire & Yorkshire Railway, and subsequently at Waterford, from which place a train ferry service will be maintained to and from Southampton, and to a port in South Wales to be subsequently decided upon. The project is receiving the support of the Irish office, and already negotiations have been started with the War Department for the purchase of three of the train ferries which have been so successfully used by the army between England and France.

### To Improve Mexican Railroads

A despatch from Monterey, Mexico, says that in order to bring about a betterment of the railroad service of the country the Department of Communications and public Works of the National Government has appointed a commission to take charge of the improvement and maintenance of the several lines. This commission also is charged with the function of exercising similar jurisdiction over the highways and telegraph systems of the country. Its first work will be to make a complete survey of all of the railroads to determine the exact needs in the way of physical betterment, particularly that of new rails, lowering of grades, and the adding of rolling stock. This work will be done by a corps of engineers.

The shortage of equipment is becoming so acute on some of the divisions of the National Railways of Mexico that freight and passenger traffic has been almost entirely suspended. All trains on the Monterey-Tampico division have been taken off except a mixed freight and passenger train that is to make a trip between the two important terminals three times a week.

### New Line, Rome-Constantinople Direct, Planned

A plan for the building of a trans-Balkan railroad which would connect Italy directly with the East by a system of ferries across the Strait of Otranto, which is at the heel of Italy and forms the outlet of the Adriatic into the Mediterranean Sea, has been submitted by G. Buonomo, an Italian engineer, and published by the Italian Institute for Commercial and Colonial Expansion.

Italy has always advocated the building of a railroad direct from Constantinople, through Salonica to Avalona, for her own commercial expansion and for the unity of the Balkans, but the governing nations have always opposed it.

Such a railroad would shorten the distance between the principal commercial and industrial centers in Italy and Balkan cities by several hundred miles. From Avalona on the Balkan side to Otranto on the Italian side, a ferry would have to be established to make the line from the Balkans to Italy complete. Over this route the distance from Rome to Constantinople could be traversed in 48 hours, and it would be decreased from 1,905 miles, the present length of the trip via Cevignano, to 1,260 miles, the length over the new proposed line via Avalona.

### Allied Guard Planned for Trans-Siberian Railroad

More definite information concerning the agreement between the powers concerning the operation of the Trans-Siberian Railroad is still lacking. An Associated Press despatch from Vladivostok, February 2, however, says that the feature of the plan for operating the Trans-Siberian Railway, which is in process of elaboration at conferences between John F. Stevens, the American Ambassador (to Japan), Roland S. Morris and representatives of the Allies, is that the line shall be guarded by American and Allied troops.

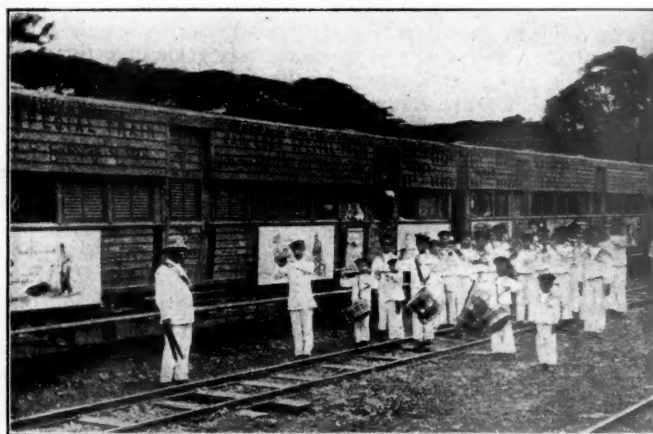
Mr. Stevens is reported to have said that only under that condition will he undertake the task of rehabilitating the railroad. Ambassador Morris is said to support him. The ambassador is clothed with plenary powers to conclude the plan of operation, which, it is expected, will be perfected within a month.

The necessity for an Allied guard has been accentuated by the project of the early repatriation of the Czecho-Slovak troops, preparations for which already are completed. The removal of invalids and wounded is now going on.

The corps of railroad operatives organized by Mr. Stevens, which has been waiting for a year to begin work, is under orders to be ready at an hour's notice to proceed to points already assigned in the scheme of operation.

### A War Loan Special in Burma

The United States is not the only place that has made use of War Loan Specials in bond campaigns. During the second India War Loan last August and September, the Burma railways ran such a train over their lines with marked success. The train was made up of highly decorated cars, had band and pwé (theatrical) parties on board and bands and pwé parties at every station. The Burmese are not great investors, but the striking appeal made by the train attracted



The Burma War Loan Special Is Assisted by a Chinese Boys' School Fife and Drum Corps

them and brought out a very large sum of money, some of which had been hoarded, and showed signs of not having been in circulation for many years. The arrival of the train at a station was the sign of a holiday, people coming with their families to take part in the festivities from every point within 20 miles distance. The train traveled during daylight only, stopping at every station. It was on the road 28 days, stopped at 202 stations and, in addition, spent three days at Rangoon. In all it covered 1,058 miles.

### New International Routes

There seems to be every prospect of quite a number of the new international railway routes proposed during the war materializing at a very early date, says the Railway Gazette of London. According to the most recent information the first of these is likely to be a through service between Paris and Bucharest, operated by the Entente, and in a measure succeeding the notorious and short-lived "Balkan Zug." This service has been the subject of study by a Franco-



Roumanian mission in Vienna, and is expected to be inaugurated during the current month. The route will be Paris, Berne, Zurich, Arlberg, Innsbruck, Vienna, Budapest and Bucharest, and is, therefore, mainly through territory which for over four years has been enemy country. During the war there have been a number of proposals for the provision of new international services entirely avoiding German and Austrian territory, and one of these will be the revived Orient Express from Paris to Constantinople. Prior to the war this ran via Strasbourg, Munich, Vienna, Budapest and Sofia. On the outbreak of war the Germans seized a good deal of the rolling stock belonging to the International Sleeping Car Company, and the "Balkan Zug" was really nothing but the Orient Express in a German disguise. The new Orient Express, which will not touch German territory, will use either the Simplon or Mont Cenis route to Milan, and run thence to Constantinople via Venice, Trieste, Agram, Nish and Sofia, with a Nish-Athens portion via Uskub and Salonica. The International Sleeping Car Company also plans to extend the service to Bagdad and Jerusalem and to link up with its existing services in Egypt, via Kantara.

### Labor Difficulties in Great Britain

London despatches of Tuesday last indicate that labor matters on the railways of England and Scotland are in a very unsettled state. The London tubes are not running owing to a strike of motormen on some lines and of power house employees on these lines and others; and the secretary of the Associated Society of Locomotive Engineers and Firemen has announced that all drivers on railways having electric divisions are being called out. The despatches say, however, that a strike of stationmasters, ticket clerks, etc., has been averted by the recognition of the Railway Clerks' Union. Representatives of the union had an interview Tuesday with Sir Robert S. Horne, Minister of Labor, and Sir Albert H. Stanley, president of the Board of Trade. The matter of the grievances of the men was also discussed by a special cabinet meeting. The president of the Board of Trade, speaking of the trouble in the tube railways, said:

"Under the arrangement made in December last the government granted railway men an eight-hour working day, excluding meal times. This was accepted by the unions concerned. The unions then submitted further demands, including increased wages and improved conditions of service apart from the eight-hour day. These matters are to be considered at the meeting next week between the members of the railway executive committee and the men's unions. Meanwhile, existing conditions of service apart from the eight-hour day are to remain unaltered. Despite this agreement with responsible unions, certain employees of the Underground and the London and Brighton railways have taken it upon themselves to strike and demand that meal times shall now be included in the eight-hour day. This demand, if granted, would mean that these men would work only seven or seven and a half hours daily. If this arrangement was extended to other railways it would reduce the working day to as low as six and a half hours in some cases. It is quite clear that what is now demanded by the small section of the men who are on strike is contrary to what has been agreed with the unions."

The present labor trouble on the railways seems to be part of the strike fever now prevalent in the United Kingdom, but it also goes as far back as the threatened strike of drivers and firemen in August, 1917. At that time, Sir Albert Stanley wrote to the Associated Society of Locomotive Engineers and Firemen as follows: "I pledge the government, the War Cabinet, and myself personally, to continue the present control of the railways for a time after the cessation of hostilities, \* \* \* and that any reasonable request for a shorter working day will have the immediate and sympathetic consideration of the government."

The signing of the armistice, being construed as the "cessation of hostilities," the society promptly demanded the redemption of the pledge and was joined by the National Union of Railwaymen. Both threatened trouble if prompt action were not taken. The Board of Trade, working without association with the railways themselves, thereupon entered into the following agreement in the early part of De-

cember, this being the agreement mentioned by Sir Albert in his statement above:

(1) The principle of an eight-hour day for all members of the wages' staff has been conceded, and is to come into operation February 1.

(2) All existing conditions of service to remain unaltered pending the decision of a committee, to be set up as soon as possible, to review wages and other conditions of service of railwaymen in Great Britain.

J. H. Thomas, who was a party in the negotiations, has stated that the eight-hour principle is not established for the purpose of enabling overtime to be worked.

The National Union of Railwaymen, promptly following the announcement of the agreement, brought out these further extreme demands:

**Hours.**—That eight hours constitute a working day and 48 hours a working week.

**Wages.**—That all advances given as war increases be converted into permanent wages.

**Guaranteed day and guaranteed week.**—That a guaranteed day and a guaranteed week be established on all railways.

**Overtime.**—That double time be paid for all overtime.

**Sunday duty.**—Between 12 o'clock midnight Saturday and 12 o'clock midnight Sunday to be paid for at rate of double time. Sunday duty to be independent of the guaranteed week.

**Night duty.**—6 p. m. to 6 a. m. That night duty be paid for at the rate of time and a half.

**Piecework, tonnage and bonus systems.**—That all piecework, tonnage and bonus systems be abolished.

**Mileage system.**—That on those systems where locomotivemen at present work under a mileage clause 120 miles to constitute a day's work on passenger trains and 96 miles on goods trains; all mileage over and above this to be paid for at an equivalent rate.

**Rest.**—That the period of rest between turns of duty be not less than 12 hours.

**Hybrid grades.**—That hybrid grades be abolished.

**Standard rates of pay.**—That conditions of service for railwaymen be standardized upon all railways in the United Kingdom.

**Management of railways.**—That there be equal representation, both national and local, for this union upon the management of all railways in the United Kingdom.

**Fourteen days' holiday with pay.**—That 14 days' holiday with pay be allowed.

These demands are apparently being pushed with a degree of force befitting their drastic character. At a conference held in London on January 26, a strong feeling was expressed regarding the government's "continued neglect to deal adequately" with the men's grievances and threats were made of a strike unless matters were settled by February 9.

The trouble on the electric lines is additional to the negotiations with the National Union of Railwaymen, and in general, the situation, to an American reader at least, seems as complicated as it is fruitful of trouble.

There is also trouble with the shopmen. These were not included in the eight-hour day agreement, but were covered by another, made between them and the railways, following a similar agreement in the engineering trades in general, which gave the shop workers a reduction of their working week "to 47 hours on the 'one-break' system to come into effect on January 1, 1919, it being further agreed that other working conditions should be meantime maintained and present weekly time rates shall apply to the reduced working hours," etc.

This agreement has also caused trouble just as that with the drivers and enginemen. Trouble was experienced during January, on the Lancashire & Yorkshire and the London, Brighton & South Coast, over the introduction of the 47-hour week on those roads. On the former, the men at the Formby power-house on the Liverpool and Southport electrified line wanted to be treated as engineers and not as shopmen; as shopmen they did not get the 47 hours until February 1. The trouble on the Brighton road is caused by the men at Lancing shops, who live at Brighton, desiring to be paid for their traveling time.

Later despatches on Thursday say that the strike of the enginemen and firemen on the electric lines has been extended to the steam suburban and to a lesser degree to other services on the London, Brighton & South Coast and the London & South-western, and that members of the National Union of Railwaymen were out on the Great Western at Plymouth. Traffic into and out of London is being handled in so far as possible by the tramways and busses and by motor trucks driven by military men. The large numbers who have had to walk have been much inconvenienced by snow and slush.

## Equipment and Supplies

### Locomotive Deliveries

Forty new locomotives were shipped to railroads under federal control during the week ended January 25, as follows:

Works	Road	Number	Type
American	C. & O.	7	USRA Mallet
	Mobile & Ohio	4	USRA 6-w. Sw.
	*Duluth, Missabe & Northern	3	USRA Santa Fe
	*Oregon Short Line	1	USRA Mikado
	Chic., R. I. & Pac.	4	USRA 6-w. Sw.
	C. & O.	3	10-w. Switch.
	C. & N. W.	1	Mikado
Total		23	
Baldwin	Lehigh Valley	3	Pacific
	B. & O.	6	USRA Mikado
	A. T. & S. Fe.	3	Mikado
	Illinois C. R. R.	2	Mikado
	Atlantic Coast Line	1	Mikado
	Phil. & Reading	1	Consol.
	Penna. R. R.	1	Mikado
Total		17	
Grand total		40	

\* Three U. S. R. A. Santa Fe constructed for the Duluth, Missabe & Northern, were shipped to Columbus, Ohio; and one U. S. R. A. Mikado constructed for the Oregon Short Line was shipped to Cleveland, Ohio, to be stored as parts of emergency pools.

### Locomotives

ROBERT HUDSON, LTD., Leeds, England, have ordered two Mogul type locomotives, weighing 37,000 lb., and with 11 by 16 in. cylinders, from the American Locomotive Company, for service in Portuguese East Africa.

THE FEDERATED MALAY STATES RAILWAYS have ordered 12 locomotives from the Baldwin Locomotive Works.

[A reference to the shortage of rolling stock on these railways appeared in the Foreign Railway News Section of the *Railway Age*, issue of January 24, page 275.]

CHINESE ORDERS.—The report, given in some of the newspapers and other places, to the effect that the Baldwin Locomotive Works has recently received orders for 34 locomotives from railways in China, is not true, as the orders were placed some time ago, and in one case at least were put on the books nearly two years ago. The report in question outlined the orders as follows: South Manchuria Railway, 12; Pekin-Mukden, 14; Lunghai-Peinlo, 4, and the Shantung Railway, 4.

THE SOUTH AFRICAN GOVERNMENT RAILWAYS have ordered 40 Mountain type locomotives from the American Locomotive Company, and 30 of the same type from the Baldwin Locomotive Works. Of the 40 ordered from the American Locomotive Company, 20 will have a total weight in working order of 200,000 lb., and 22 by 28 in. cylinders, and 20 will have a total weight in working order of 195,000 lb., and 22 by 26 in. cylinders.

THE PROVINCE OF SANTA FE RAILROAD of Argentina (Cie Francaise des chemins de fer de la Province de Santa Fé) has ordered 20 Pacific type locomotives from the American Locomotive Company. These locomotives will have a total weight in working order of 105,000 lb and 16 by 20 in. cylinders.

[The Province of Santa Fé Railroad is controlled by French capital, its head offices being in Paris, and its South American headquarters being at Santa Fé. It operates about 1,200 miles of meter-gage lines and owns about 160 locomotives and 5,643 freight cars.]

### Freight Cars

THE HOLLAND-ST. LOUIS SUGAR COMPANY, Decatur, Ind., is inquiring for two small side dump cars.

THE FERRO CONSTRUCTION COMPANY, Chicago, is inquiring for one 48-ft., 110,000-lb.-capacity steel flat car.

THE PUSSEY-JONES COMPANY, Gloucester City, N. J., is inquiring for one 25-ton drop-bottom coal car.

## Supply Trade News

J. H. Regan, assistant secretary of the Pressed Steel Car Company, has been transferred from the New York to the Chicago office of that company.

W. R. Colklesser has been appointed purchasing agent of the Gadsden Car Works, Richmond, Va., vice W. F. H. Finke, resigned to accept service with the United States Railroad Administration.

J. D. Corby has resigned as St. Louis district manager of sales for the Chicago Pneumatic Tool Company and has assumed the active management of the Corby Supply Company, of St. Louis.

Alden R. Ludlow, formerly vice-president of the Liquid Carbonic Company of Chicago, assumed his new duties as second vice-president and sales manager of the Air Reduction Sales Company, Inc., New York, January 1.

Huntly H. Gilbert, who left the service of the Pressed Steel Car Company and Western Steel Car & Foundry Company at the start of the war, to enter the army as captain in the Ordnance Department at Washington, and later was commissioned major and transferred to the Rock Island Arsenal, has re-entered the service of the above named companies, as assistant manager of sales, western district, located at 425 Peoples Gas building, Chicago.

Arthur F. Braid has been appointed sales manager of the metal and alloy department of the Metal & Thermit Corporation. Mr. Braid went to the company seven years ago as a traveling salesman, and after a few years of service in this capacity was appointed assistant superintendent of the Jersey City plant, in charge of the manufacture of carbonfree metals and alloys. When the United States entered the war, he assumed active charge of the metal sales at the New York office of the company.

Randolph S. Reynolds, secretary of the Curtain Supply Co., Chicago, died of pneumonia on January 20. Mr. Reynolds was with the Curtain Supply Co. since 1912. Prior to that time he was with the Western Steel Car & Foundry Co., at Anniston, Ala., and the Pressed Steel Car Co. at Pittsburgh, Pa., having been connected with their purchasing departments from 1905 to 1912. He left the Pressed Steel Car Co. in 1912 to accept a position with the Curtain Supply Co. and later was made assistant to general manager, and on April 30, 1918, was elected secretary to succeed Holmes Forsyth, who on that date became president.

### Railway Supply Dinner

The Chicago Railway Equipment Company gave its twenty-sixth annual dinner at the Union League Club, Chicago, on the evening of February 4. There were present the officers and directors of the company and also a large number of leading men in the railway supply and other industries. The president of the company, E. B. Leigh, was toastmaster, and the speakers were Samuel O. Dunn, editor of the *Railway Age*; William C. Cornwell, editor of the *Bache Review*; A. H. Mulliken, president of Pettibone, Mulliken Company, and James A. Emery, general counsel of the National Council of Industrial Defense.

Mr. Dunn's subject was "The Railway Problem." He pointed out several measures which should be adopted in order to make it feasible to return the railways to private operation and make private operation a success. He especially emphasized the need for legislation to re-establish railway credit, and upon this point said:

I wish to call attention particularly to the relatively small difference in railway earnings which is required to make all the difference between adversity and prosperity, stagnation and expansion, in the railroad industry. On December 31, 1917, the



property investment of our railways, as reported by the Interstate Commerce Commission, was \$19,000,000,000. Let us call it twenty billions in order to make simple the calculations I shall base upon it. If the railways earn  $4\frac{1}{2}$  per cent net operating income on this amount, \$900,000,000 a year, we know from past experience that the industry will be extremely unprosperous and stagnant. This is approximately the average that was earned in the five years 1911 to 1915, inclusive, when railway expansion almost came to a stop. One billion net operating income would produce 5 per cent. The industry would still be stagnant with this rate of return. On the other hand, if the net operating income amounted to \$1,200,000,000, or an average of 6 per cent for the railways as a whole, I believe the result would be reasonable prosperity in the industry and a revival of the expansion.

Since no intelligent person would contend that the railways should be restricted to less than 5 per cent, we are justified in saying that the settlement of the problem of railway credit hinges mainly upon the determination of the question whether they shall be allowed to earn more than 5 per cent, and, if so, how much more. If they were allowed to earn 6 per cent, their net operating income would be only two hundred millions a year more than if they were allowed to earn only 5 per cent.

Now, relatively, how much difference in the burden of rates to be borne by the public would this difference of \$200,000,000 a year make? A year ago, the railways were paying about \$2,000,000,000 a year in wages. Now they are paying about \$2,800,000,000, and when the pending advances to the train service employees are granted, this will be increased to \$2,900,000,000. Therefore, the difference in net operating income required to make the difference between railway stagnation and expansion would be but 7 per cent as great as the total wages now being paid, and only one-fifth as great as the advances in wages which have been made within the past year. A year ago the total earnings of the railways were running at the rate of \$4,300,000,000. Today they are running at the rate of \$5,400,000,000. Therefore, the difference in net operating income required to make the difference between railway stagnation and expansion would be less than 2 per cent as great as the current earnings, and only one-fifth as great as the increase in earnings which has occurred in the last year.

If the public is willing to pay in increased freight and passenger rates an advance of almost a billion dollars in wages in order to satisfy railway labor, surely it ought to be willing to pay one-fifth that much in order to make the difference between adversity and prosperity, stagnation and expansion in the railway industry. As a matter of fact, it would not cost the public a dollar to re-establish the credit of the railway companies by assuring them a reasonable net return, and then returning the roads to private operation. In my opinion, if this were done, the managements would soon effect economies by making needed improvements and by adopting better operating methods, which would save the country vastly more than \$200,000,000 a year in operating expenses.

Mr. Cornwell discussed the subject of "Industrial Readjustment." He laid special stress upon the menace to industry, and especially to American labor, that is presented by the prevalent unrest and increasing unemployment. The situation is aggravated by the necessity for transferring industries from a war to a peace basis. The government has available, he pointed out, a means of reducing the dangers of the transition period to a minimum. The railways directly and indirectly give employment to a large part of the people, and there is no doubt as to the need for a large expansion of railway facilities. The adoption by the government of an extensive program of rehabilitation of railroads and enlargement of their facilities would do more to tide industry over the transition period and reduce unemployment to a minimum than any other policy that could be adopted.

Mr. Mulliken, in a brief talk, emphasized the necessity for an educational campaign to show labor the dangers of socialism and bolshevism, and referred to a movement which is being inaugurated by business men in Chicago and New York to carry on an educational campaign upon this subject.

Mr. Emery, in his talk, pointed out that every exertion of the human body or mind for industrial purpose is properly comprehended within the term "labor," and that all industrial progress has been due, not merely to the physical exercise of labor, but to improvements in industrial organizations, machinery and methods which have increased efficiency of production. Whatever tends unduly to impair the rewards of management and of capital will interfere with industrial progress and ultimately destroy every industrial progress from which labor benefits far more relatively than do employers and capitalists.

## Financial and Construction

### Railway Financial News

**CHICAGO, ROCK ISLAND & PACIFIC.**—Speyer & Co. and Hayden, Stone & Co. are offering \$4,500,000 three-year 6 per cent collateral trust gold notes, due February 1, 1922. The notes are secured by \$7,500,000 of the company's first and refunding mortgage 4 per cent bonds, the bonds being pledged at 60. The trust agreement will provide that the collateral security shall, at all times, be equal at market price to not less than 120 per cent of the face amount of the notes outstanding. The proceeds of the notes will be used for the settlement of the claims, long in litigation, of the Colorado & Southern Railway growing out of contracts relating to the securities of the Trinity & Brazos Valley Railway and the Galveston Terminal Railway Company, and the use of their properties.

**FORT SMITH, SUBIACO & EASTERN.**—Judge F. A. Youmans of the United States District Court at Fort Smith, Ark., has confirmed the sale of this road to the Commonwealth Trust Company of St. Louis, Mo., for \$50,000. Protests against the sale were filed on behalf of stockholders who contended that the bid was inadequate as the company had \$200,000 worth of property. Claims aggregating \$460,000 have been filed and hearing on these claims will be held on March 3.

**INDIANAPOLIS & FRANKFORT.**—See Pittsburgh, Cincinnati & Chicago & St. Louis.

**NEW YORK CENTRAL.**—John Skelton Williams, director of the division of finance of the Railroad Administration, is asking bids from bankers on an issue of between \$8,000,000 and \$10,000,000 New York Central equipment trust certificates.

**PENNSYLVANIA.**—An official announcement states that the stockholders at the annual meeting, on March 11, will be asked to authorize an increase of \$75,000,000 in the company's indebtedness, to be made at such times as may be prescribed by the directors. The purpose is to provide for present and future requirements, including obligations maturing during the year, and reimbursing the government for additions, improvements and equipment expenditures made in connection with government control and chargeable to the company. Through unissued balances remaining from previous authorization, the directors at present are empowered to increase the indebtedness by approximately \$46,000,000. The additional \$75,000,000 will bring the total authorization to \$121,000,000.

**PITTSBURGH, CINCINNATI, CHICAGO & ST. LOUIS.**—The stockholders at a meeting in Pittsburgh on February 3 authorized an increase in the indebtedness of the company by the issuance of \$35,000,000 of debenture gold bonds. They also authorized the purchase of the Indianapolis & Frankfort Railroad for \$6,000,000, which gives the company a direct line of its own between Louisville and Chicago. The contract with the government for the operation of the company's railroad during the period of federal control was not ready for action, and the stockholders adjourned to meet on February 17, 1919, to take up that question.

**SOUTHERN RAILWAY.**—Halsey, Stuart & Co. and the Continental and Commercial Trust and Savings Bank of Chicago, are offering at 99 $\frac{1}{4}$ , yielding over 6 $\frac{1}{4}$  per cent, \$25,000,000 three-year 6 per cent notes, due March 1, 1922.

### Railway Construction

**THE PENNSYLVANIA RAILROAD, WESTERN LINES.**—Work is now being undertaken on a number of new buildings and other facilities incident thereto in connection with a large car repair plant in the east yards at Terre Haute, Ind. The following buildings are under construction or contemplated: Office building, women's locker room, men's locker room, paint shop, freight car repair shop, storeroom building, planing mill, extension to power house and material and scrap bins.

## Railway Officers

### Railroad Administration

#### Central

**Charles F. Patterson**, heretofore counsel for claims in the Division of Law, has been appointed assistant general counsel, with office at Washington.

**Ballard Dunn** has resigned as assistant actuary of the Railroad Administration in charge of the Bureau for Suggestions and Complaints to become connected with the United States War Risk Bureau. Mr. Dunn was formerly special representative of the Union Pacific.

#### Regional

**J. C. Roth**, representative of the Car Service Section at Seattle, Wash., has been appointed car service assistant to **L. C. Gilman**, district director at Seattle. Mr. Roth's duties will be to supervise all car supply and car distribution matters on the roads in the Puget Sound district, to secure reports from the roads concerning car service and transportation matters, to issue orders covering the local distribution of cars of all classes between railroads in the territory, to supervise the terminal situation at all principal points, to keep in touch with the operating conditions in the district and to secure reports indicating the movement of cars in and out of the district, to gather information as to probable requirements for cars of all classes for loading and to continue, as at present, to act as zone embargo chairman.

**George J. Ray**, chief engineer of the Delaware, Lackawanna & Western, with office at Hoboken, N. J., has been granted leave of absence, and has been appointed engineering assistant to the regional director of the Eastern Region, with headquarters at New York. He will also perform such other special duties as may be assigned to him. Mr. Ray was born on March 24, 1876, at Metamora, Woodford county, Ill., and was graduated from the University of Illinois in 1898 with the degree of bachelor of science, and in 1910 received the degree of civil engineer from the same university. In 1916, Lafayette University gave him the honorary degree of doctor of science. In May, 1898, he began railway work as a chainman on the Illinois Central and subsequently served consecutively as rodman, inspector, instrumentman and assistant engineer. From March, 1901, to March of the following year he was supervisor of track, and then for one year was roadmaster on the same road. On March 15, 1903, he went to the Delaware, Lackawanna & Western as division engineer, at Scranton, Pa. From September, 1908, to January 1, 1909, he was with T. Burke, railroad contractor, at Scranton, and in January, 1909, he returned to the service of the D. L. & W., as chief engineer. His appointment as engineering assistant to the regional director of the Eastern Region became effective on February 1.



G. J. Ray

#### Federal and General Managers

The jurisdiction of **C. W. Galloway**, federal manager of the Baltimore & Ohio, Eastern lines, and associated lines,

with headquarters at Baltimore, Md., has been extended over the Morgantown & Kingwood.

The jurisdiction of **Charles H. Hix**, federal manager of the Norfolk & Portsmouth Belt-Line Railroad and the Hampton Roads Railroad Terminals, with headquarters at Norfolk, Va., has been extended over the Virginian Railroad.

**W. A. Winburn**, Federal manager of the Central of Georgia, the Louisville & Wadley, the Sylvania Central, the Wadley Southern and the Wrightsville & Tennille, has been appointed Federal manager also of the Augusta Southern and the Georgia & Florida, with office at Savannah, Ga.

**H. C. May** has been appointed federal manager of the Chicago, Indianapolis & Louisville and the Cincinnati Indianapolis & Western, with headquarters at Chicago, both roads having been released from the jurisdiction of **E. M. Costin**, federal manager. Mr. May's photograph appeared in the *Railway Age* July 18, 1918, on page 125. Previous to his appointment as federal manager, Mr. May was general superintendent of the Chicago, Indianapolis & Louisville.

**Leroy Kramer**, federal manager of the St. Louis-San Francisco, the Missouri, Kansas & Texas and the Missouri, Oklahoma & Gulf, has extended the authority of the following officers of the Katy & Frisco over the last named line: **C. N. Whitehead**, general manager; **C. Hails**, traffic manager; **W. F. Evans**, general solicitor; **J. G. Livengood**, general auditor; **G. E. Scott**, purchasing agent, and **S. G. Hoag**, industrial commissioner. The headquarters of these officers will be at St. Louis, Mo.

#### Operating

**J. W. Rector** has been appointed chief dispatcher of the Southern Railroad Lines, Richmond division, vice **Joseph Byrd**, granted leave of absence on account of sickness.

**F. A. Stine** has been appointed superintendent of dining car and restaurant service of the Delaware, Lackawanna & Western, with office at Hoboken, N. J., vice **J. L. Smith**.

#### Financial, Legal and Accounting

**W. P. Dewar** has been appointed acting Federal treasurer of the Missouri, Oklahoma & Gulf, with headquarters at Muskogee, Okla.

**Henry M. Piper**, paymaster of the Boston & Maine; the Montpelier & Wells River; the Barre & Chelsea; the St. Johnsbury & Lake Champlain, and the York Harbor & Beach, with office at Boston, Mass., was at his own request relieved of his duties on February 1, after 38 years' service with the Boston & Maine; **Nathaniel G. Hill** has been appointed paymaster to succeed Mr. Piper.

**B. Newhouse**, assistant federal auditor of the Minneapolis, St. Paul & Sault Sainte Marie, has been appointed federal auditor, vice **C. W. Gardner**, resigned to accept service with the corporation; **J. F. Heberle** has been appointed assistant federal auditor to succeed Mr. Newhouse, and **B. E. McCune**, auditor of disbursements, has been appointed assistant auditor; all with headquarters at Minneapolis, Minn.

#### Traffic

The title of **Nat Duke**, general freight agent of the Delaware, Lackawanna & Western, has been changed to freight traffic manager, and the title of **G. A. Cullen** has been changed from general passenger agent to passenger traffic manager, both with headquarters at New York. **J. L. Smith**, superintendent of dining car and restaurant service, with office at New York, has been appointed division passenger agent, with headquarters at Newark, N. J.

**W. G. Crush**, general passenger agent of the Missouri, Kansas & Texas of Texas (excluding the Trinity branch and the Beaumont & Great Northern), Houston & Texas Central and the Union Terminal of Dallas, has been appointed passenger traffic manager of all roads under the jurisdiction of **J. S. Pyeatt**, to succeed **J. L. West**, who has resigned to engage in other business. **J. S. Hershey**, general freight agent of the Gulf, Colorado & Santa Fe, the Texas Midland and the Houston Belt & Terminal, has been appointed freight traffic manager of all roads under the authority of Mr. Pyeatt.



Messrs. Hershey and Crush will have their headquarters at Dallas, Tex.

### Engineering and Rolling Stock

**J. L. Carver** has been appointed engineer of tests of the Illinois Central and the Yazoo & Mississippi Valley, with headquarters at the Burnside shops, Chicago, to succeed **M. W. Kramer**, deceased.

**J. H. Knowles** has been appointed chief engineer in charge of construction and maintenance of way and structures of the Western Pacific, the Tidewater Southern, and the Deep Creek, to succeed **T. J. Wyche**, who has resigned.

**C. J. Kelloway**, signal engineer of the Atlantic Coast Line, with office at Wilmington, N. C., has been appointed superintendent of signals, in charge of construction and maintenance of signals and interlocking plants on the Atlantic Coast Line, the Winston-Salem Southbound and the Tampa Southern.

**J. M. Kinkead**, supervisor of the Pennsylvania Railroad, at Altoona, Pa., has been appointed division engineer of the Trenton division, with headquarters at Trenton, N. J., succeeding **H. H. Garriques**, who has been transferred as division engineer to the Philadelphia Terminal division, at West Philadelphia, Pa., succeeding **John Atlee**, deceased.

**G. M. O'Rourke**, track supervisor on the Illinois Central, at Carbondale, Ill., has been promoted to roadmaster on the Indiana division, with headquarters at Mattoon, Ill., to succeed **F. B. Oren**, who has been transferred to the Illinois division, with headquarters at Champaign, Ill. Mr. Oren succeeds **W. C. Costigan**, who has been assigned to other duties.

**Louis L. Tallyn**, division engineer of the Delaware, Lackawanna & Western, at Scranton, Pa., has assumed the duties of chief engineer with the title of acting chief engineer during the absence of **G. J. Ray**, chief engineer, who is serving as engineering assistant to the regional director of the Eastern Region. Mr. Tallyn was born at Benson, Ill., and was educated in the University of Illinois, where he received the degree of B. S. in C. E. He began railway work on June 1, 1901, as instrumentman on the Chicago, Burlington & Quincy, and the following year he became transitman on the Illinois Central. From 1903 to 1904 he served as division engineer on the Chicago, Cincinnati & Louisville, now the Chesapeake & Ohio of Indiana, and then entered the service of the Delaware, Lackawanna & Western as assistant engineer. He remained in that position until 1910 and then became superintendent of water service. Since 1911 he served as division engineer until his recent appointment as acting chief engineer of the same road, as above noted.

### Purchasing

The jurisdiction of **W. J. Diehl**, general storekeeper of the Mobile & Ohio, with headquarters at Mobile, Ala., has been extended over the Gulf, Mobile & Northern.

**C. L. Nash** has been appointed division storekeeper of the Mobile & Ohio, with headquarters at Tuscaloosa, Ala., succeeding **T. S. Edgell**, who has been transferred to other duties.

## Corporate

### Executive, Financial, Legal and Accounting

**W. W. Collin, Jr.**, assistant general counsel of the Pennsylvania Lines West, representing the corporation, has resigned to become a member of the law firm of Borders, Walter & Burchmore.

**Cecil Edward Friend**, who has been appointed controller of the Canadian National Railways, with headquarters at Toronto, Ont., as has already been announced in these columns, was born on October 12, 1871, at Brighton, England, and was educated in private schools. He began railway work on December 1, 1893, with the Canadian Pacific as private secretary to the traffic manager, at Winnipeg, Man. In Oc-

tober, 1896, he became stenographer and the following June was appointed chief clerk and accountant in the office of the superintendent of the Canadian Northern, at Winnipeg. He later served as auditor, and from July 1, 1910, as general auditor at Winnipeg, on the same road, until his appointment as controller of the Canadian National Railways, with office at Toronto, Ont., as above noted.

### Operating

The jurisdiction of **T. J. Lowe**, fuel agent, of the Canadian National Railways, with headquarters at Winnipeg, Man., has been extended to include all Western lines.

**W. E. Leith** has been appointed superintendent and general freight and passenger agent of the Sewell Valley Railroad Company, with headquarters at Rainelle, W. Va., vice **R. E. Shinn**, deceased.

**F. S. Elliott**, chief operating officer of the Spokane & Inland Empire, with headquarters at Spokane, Wash., resigned on February 1, and the position of chief operating officer has been abolished. **J. F. Gannaway**, assistant superintendent, with office at Spokane, has been appointed superintendent.

### Traffic

**J. O. Apps**, general baggage agent of the Canadian Pacific, with office at Montreal, Que., has been appointed general agent, mail, baggage and milk traffic, with office at the same place.

The general manager for the receiver of the Manistee & North-Eastern announces that **F. A. Mitchell** has resigned the office of general traffic manager, and that office has been abolished. **D. Riely**, general freight and passenger agent, with office at Manistee, Mich., will in future handle all matters pertaining to traffic.

**S. Osborne Scott**, whose appointment as general passenger agent of the Canadian National Railways, with jurisdiction over lines west of Port Arthur, Ont., Armstrong and Duluth, Minn., was announced in the *Railway Age* of January 24, was born at St. Andrews, Man., in 1881. He graduated from the University of Manitoba in 1901, and immediately entered the service of the Canadian Northern as a junior clerk in the audit department. In 1903 he became a clerk in the traffic manager's office at Winnipeg, Man., which position he held in 1907, when he took charge of the ticket stock, baggage and advertising. In 1910 he was appointed traveling passenger agent, with headquarters



S. O. Scott

at Toronto, Ont., but later was removed to Winnipeg as chief clerk in the passenger department. From 1911 to the date of his recent appointment as general passenger agent he has been assistant general passenger agent. His new headquarters will be at Winnipeg.

The following appointments have been made on the Canadian National Railways, effective January 25: **James Morrison**, assistant general passenger agent of the Canadian Northern, lines east of Port Arthur, has been appointed assistant general passenger agent, and **J. E. LeBlanc**, district passenger agent of the Canadian Government Railways, has been appointed district passenger agent, both with offices at Montreal, Que., and with jurisdiction over Garneau, Levis and west to North Bay, Smiths Falls and Brockville; **H. C. Bourlier** has been appointed assistant general passenger

agent, with office at Toronto, Ont., and with jurisdiction over Brockville, Smiths Falls and west to Port Arthur.

**James Edward**, division freight agent of the Grand Trunk, with office at Ottawa, Ont., has been appointed division freight agent, with headquarters at Montreal, Que., vice **G. T. Pettigrew**, resigned to go into other business. **R. J. S. Weatherston**, division freight agent at Stratford, succeeds Mr. Edward and **Vivian G. Snell**, commercial agent at Moncton, N. B., has been promoted to division freight agent, at Stratford, to succeed Mr. Weatherston.

**J. M. Macrae**, whose appointment as assistant general freight agent of the Canadian National Railways, lines west of Port Arthur and Armstrong, Ont., and Duluth, Minn., was announced in the *Railway Age* of January 24, was born at Stornoway, Scotland, in 1884. He entered the service of the Canadian Northern at Winnipeg, Man., in 1906, in the accounting department. In 1907 he went with the Canadian Pacific as a stenographer in the office of the assistant freight traffic manager, remaining with that company as tariff clerk, assistant chief clerk and chief clerk in the freight traffic department until 1911, when he entered the service of the Imperial Oil, Ltd. (Canadian subsidiary of the Standard Oil Company), in charge of traffic matters in western Canada. In 1912 he re-entered the service of the Canadian Northern as district freight agent at Saskatoon, Sask., remaining in that capacity until the date of his promotion to assistant general freight agent.

**R. Creelman**, assistant passenger traffic manager of the Canadian National Railways, lines west of Port Arthur, Armstrong, Ont., and Duluth, Minn., with headquarters at Winnipeg, Man., whose appointment was announced in the *Railway Age* of January 24, began railway work with the Grand Trunk in 1890. He was consecutively junior clerk, ticket clerk (Toronto, Ont., office), ticket clerk (depot office) and chief clerk to the district passenger agent until 1900, when he went to the Canadian Pacific as rate clerk in the passenger department at Winnipeg. He became chief rate clerk for the Canadian Northern in 1901, and in 1902 became city ticket agent for the Northern Pacific at Winnipeg. Re-entering the employ of the Canadian Northern in 1906, as traveling passenger agent with headquarters at St. Paul, Minn., he was subsequently commercial agent, with headquarters at St. Paul, assistant general passenger agent at Winnipeg, and in 1911 was appointed general passenger agent, which position he held until his recent appointment as assistant passenger traffic manager of the Canadian National Railways.

**Walter Hatley**, whose appointment as assistant general freight agent of the Canadian National Railways, with headquarters at Winnipeg, Man., has already been announced in these columns, was born on March 5, 1887, at Brantford, Ont., and was educated in the public schools of his native town and at Collegiate Institute. He began railway work in March, 1904, with the Grand Trunk as a clerk in the local freight office at Hamilton, Ont., and in August, 1908, he became an accountant in the superintendent's office at Toronto. From September of the following year to October, 1913, he was a clerk in the freight tariff bureau of the same road at Montreal, and then served for two years as a clerk in the freight tariff bureau of the Canadian Northern, at Winnipeg. From October, 1915, he was chief of the tariff bureau of the Canadian Northern, until his recent appointment as assistant general freight agent of the Canadian National Railways, in

charge of publication of tariffs and subdivisions for lines west of Port Arthur, Ont., Armstrong and Duluth.

### Engineering and Rolling Stock

**A. L. Graburn**, assistant superintendent of rolling stock of the Canadian Northern, with office at Toronto, Ont., has been appointed general fuel agent of the Canadian National Railways, with office at Toronto.

### Purchasing

**E. H. O'Neil**, general superintendent and purchasing agent of the Manistee & Northeastern, with office at Manistee, Mich., has resigned and the office of general superintendent has been abolished. **W. D. Manchester** has been appointed purchasing agent to succeed Mr. O'Neil.

### Obituary

**John B. Frost**, superintendent of transportation for the Oliver & Snyder Steel Company, Union Town, Pa., died January 30, age 67. Mr. Frost served for 25 years with the Baltimore & Ohio in various capacities and has been head of the Oliver & Snyder transportation department for the past 18 years.

**David B. Keeler**, vice-president of the Fort Worth & Denver City, the Fort Worth & Denver Terminal, the Wichita Valley, the Wichita Falls & Oklahoma, the Stanford & Northwestern and the Abilene & Northern, died on February 1, at Fort Worth, Tex., after an operation. He was 70 years old. Mr. Keeler began railroad service in 1871 with the Denver Pacific, remaining with that road until 1875, when he became agent for the Colorado Central at Golden, Colo. Subsequently he held various positions with the Colorado Central and St. Louis Pacific and in 1890 he became assistant general freight agent of the Union Pacific at Denver, Colo. In 1899 he entered the employ of the Fort Worth & Denver City as general freight and passenger agent, being elected vice-president and traffic manager in 1899, and vice-president in 1906. In 1907, he was also elected vice-president of the Wichita Valley.

**Francis La Bau**, traffic assistant to the regional director, Eastern Region, died on February 1, at his home in Tarrytown, N. Y. He was born on December 13, 1859, at Rahway, N. J., and was educated at the Moravian Institute, Nazareth, Pa. He began railway work in 1879, as local waybill clerk on the Pennsylvania Railroad at Philadelphia, Pa., and subsequently served in various positions in the same office until 1882, when he became a clerk in the division freight office of the United Railroads of New Jersey division. He then served consecutively as secretary to the freight traffic manager of the New York, West Shore & Buffalo, and as chief clerk to the traffic manager of the West Shore.

From 1891 to January, 1893, he was assistant general freight agent of the same road and was then promoted to general freight agent. In July, 1904, he became assistant freight traffic manager of the New York Central & Hudson River and the West Shore. In May, 1907, he was promoted to freight traffic manager of the New York Central. From December, 1914, to August 1, 1917, he was freight traffic manager of the lines east of Buffalo. He was then appointed traffic manager of the same lines, and since June, 1918, served as traffic assistant to the regional director, Eastern Region, with office at New York.



R. Creelman



Francis La Bau